

EIC SEARCH RESULTS

Serial No. 10/780,924 – Motion based system

Searcher: Ethel Leslie

Date: July 28, 2008

Foreign & International Patents

Search Strategy

Set	Items	Description
S1	1882	S (MOTION OR FLIGHT? OR RIDE? ? OR FLYING OR AVIATION? OR SPACEFLIGHT? OR ZERO()GRAVITY? OR (G OR CENTRIPETAL? OR CENTRIFUGAL?) ()FORCE? ? OR DISORIENT? OR DIS()ORIENT?) (3N) (SIMULATE? OR SIM OR SIMS OR REPLICAT? OR EMULAT?) OR (AMUSEMENT? OR ENTERTAINMENT? OR AMUSEMENTPARK? OR FUNFAIR? OR FAIR OR FAIRS OR DISNEYLAND? OR DISNEYWORLD? OR DISNEY() (LAND OR WORLD) OR SIX()FLAGS OR SIXFLAGS OR BUSCH()GARDENS OR (THEME OR HERSHEY) ()PARK? ? OR CARNIVAL? OR CEDAR()POINT) (3N) (RIDE OR RIDES)
S2	373082	S IC=(GO9B? OR A63B? OR A63C? OR A63D? OR A63F? OR A63G? OR A63H? OR A63J? OR A63K?)
S3	374172	S S1:S2
S4	133432	S HUB OR HUBS OR PLATFORM? OR ENTRYWAY? OR ENTRY? ? OR STATION? ? OR TOWER? ? OR DISC OR DISCS OR BASE? ? OR PLATE OR PLATES OR BASEPLATE? OR TABLE? OR STAGE? ?
S5	6514	S (CENTER? OR CENTRAL? OR MIDDLE OR MID OR INTERMEDIATE?) (5N) S4
S6	7116	S (STATIONARY? OR IMMOBIL? OR UNMOV??? OR NONMOV??? OR NONROTAT? OR UNROTAT? OR FIXED? OR (NON OR UN OR "NOT") (3W) (ROTAT? OR MOVE? ? OR MOVING OR MOVAB? OR MOVEAB? OR YIELD???) OR UNYIELD??? OR (STAY??? OR STAND???) (2W) STILL) (5N) S4
S7	63080	S RING OR RINGS OR PLATE? ? OR PLATFORM? OR STAGE? ? OR TABLE? ?
S8	5630	S (OUTER OR OUTSIDE OR OUTERMOST? OR FURTHEST OR THIRD OR SECOND OR SURROUNDING) (5N) S7
S9	9958	S (ROTAT? OR TURN??? OR TWIST??? OR SWIVEL? OR REVOLV??? OR REVOLUTION? ? OR PIVOT? OR TORQUE? OR RADIAT? OR CIRCULAT? OR SPIN OR SPINS OR SPUN OR SPINNING OR MOVE? ? OR MOVEAB? OR MOVING OR MOTION? ?) (5N) S7
S10	1642	S (CONTINUOUS? OR CONTINUAL? OR (NON OR "NOT" OR UN) () (STOP OR STOPS OR STOPP???) OR CONSTANT? OR CONSISTENT? OR SUSTAIN?) (5N) (ROTAT? OR TURN??? OR TWIST??? OR SWIVEL? OR REVOLV??? OR REVOLUTION? ? OR PIVOT? OR TORQUE? OR RADIAT? OR CIRCULAT? OR SPIN OR SPINS OR SPUN OR SPINNING OR MOVE? ? OR MOVEAB? OR MOVING OR MOTION? ?)
S11	37	S S5:S6 (2S) S8:S9 (2S) S10
S12	37	S S11 AND S3
S13	59	S S1:S2 AND S5:S6 AND S8:S9 AND S10
S14	22	S S13 NOT S12
S15	111	S S8:S9 (35N) S10
S16	628	S S1/TI, DE
S17	3	S S15 AND S16
S18	107	S S15 AND S2

S19 2484 S (PASSENGER? OR RIDER? OR RIDE OR RIDES OR RIDING OR TRAVEL?
OR ASTRONAUT? OR COSMONAUT? OR SPACEM?N OR SPACE() (MAN OR MEN)) (5N) (UNIT OR
UNITS OR CAR OR CARS OR VEHICLE? ? OR VEHICULAR? OR POD OR PODS OR CART OR
CARTS OR ORB OR ORBS OR SPHERE? ? OR SEAT? ? OR SEATING OR BENCH??)
S20 4 S S18 AND S19
S21 1 S S20 NOT (S12 OR S14 OR S17)
S22 47 S S1:S2 AND S5:S6 AND S8:S9 AND S19
S23 47 S S22 NOT (S12 OR S14 OR S17 OR S21)

[File 350] **Derwent WPIX** 1963-2008/UD=200847

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[File 347] **JAPIO** Dec 1976-2007/Dec(Updated 080328)

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Search Results

12/12,K/15 (Item 15 from file: 350) Links

Fulltext available through: Order File History

Derwent WPIX

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0010062034

WPI Acc no: 2000-367885/200032

XRPX Acc No: N2000-275368

**Four-bar or parallel linkage mechanism, comprises joined link sections to
provide unconstrained continuous rotation**

Patent Assignee: **HOBERMAN C** (HOBE-I)

Inventor: **HOBERMAN C**

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 1005884	A2	20000607	EP 1999309752	A	19991203	200032	B

Priority Applications (no., kind, date): US 1998111001 P 19981204; US
1999366831 A 19990804; AU 199963013 A 19991201

Regional Designated States: AL AT BE CH CY DE DK ES FI FR

GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

Alerting Abstract EP A2

NOVELTY - The mechanism comprises a number of links joined such that they
form a **continual rotation** mechanism. The links (15) comprise of a **non-
rotating** link that joins two link **plates** (1), at an angle of 90(deg) to one
another, to a **plate** (10). **Rotating** links are attached to the **non-rotating**
link **plate** members.

DESCRIPTION - INDEPENDENT CLAIMS are included for a toy comprising the
linkage assembly and a linkage mechanism.

USE - Linkage system for providing a **continual rotating** action.

ADVANTAGE - The link assembly provide an unconstrained linking **motion**

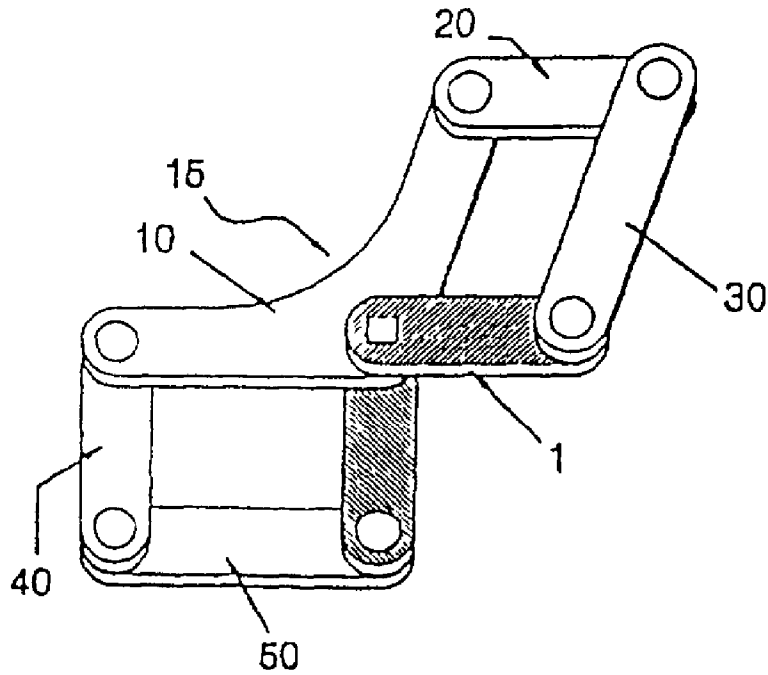
DESCRIPTION OF DRAWINGS - The figure shows a link **plate** that forms part of
the linking mechanism.

1Non-**rotating** link **plates**

10Mounting **plate**

15Mechanism link

Main Drawing Sheet (s) or Clipped Structure(s)



&

Title Terms /Index Terms/Additional Words: FOUR; BAR; PARALLEL; LINK; MECHANISM; COMPRISE; JOIN; SECTION; **CONTINUOUS**; **ROTATING**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63F-0009/08	A	I		R	20060101
A63H-0033/00	A	I		R	20060101
A63H-0033/04	A	I	F	R	20060101
E04B-0001/344	A	I		R	20060101
F16H-0021/32	A	I		R	20060101
F16S-0005/00	A	I	L	R	20060101
A63F-0009/06	C	I		R	20060101
A63H-0033/00	C	I		R	20060101
A63H-0033/04	C	I	F	R	20060101
E04B-0001/344	C	I		R	20060101
F16H-0021/00	C	I		R	20060101
F16S-0005/00	C	I	L	R	20060101

US Classification, Issued: 446487, 446104, 446108

File Segment: EngPI; ;

DWPI Class: P36; Q43; Q64; Q68

Alerting Abstract ...NOVELTY - The mechanism comprises a number of links joined such that they form a **continual rotation** mechanism. The links (15) comprise of a **non-rotating** link that joins two link **plates** (1), at an angle

of 90(deg) to one another, to a **plate** (10). **Rotating** links are attached to the **non-rotating** link **plate** members. **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date **A63F-0009/08...** ...**A63H-0033/00...** ...**A63H-0033/04** **A63F-0009/06...** ...**A63H-0033/00...** ...**A63H-0033/04**

12/12,K/22 (Item 22 from file: 350) Links

Fulltext available through: Order File History

Derwent WPIX

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0008284700

WPI Acc no: 1997-394117/199737

XRPX Acc No: N1997-328024

Launching apparatus for spherical and disc-shaped objects - rotates arm constantly into which object to be thrown is loaded which is driven outwardly by centrifugal force to outer end of arm from where it is ejected

Patent Assignee: CILUFFO G (CILU-I); CILUFFO G I (CILU-I); MULLER J J (MULL-I); WOOTTON J R (WOOT-I)

Inventor: CILUFFO G; CILUFFO G I; MULLER J J; WOOTTON J R

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
CA 2190381	A	19970516	CA 2190381	A	19961114	199737	B

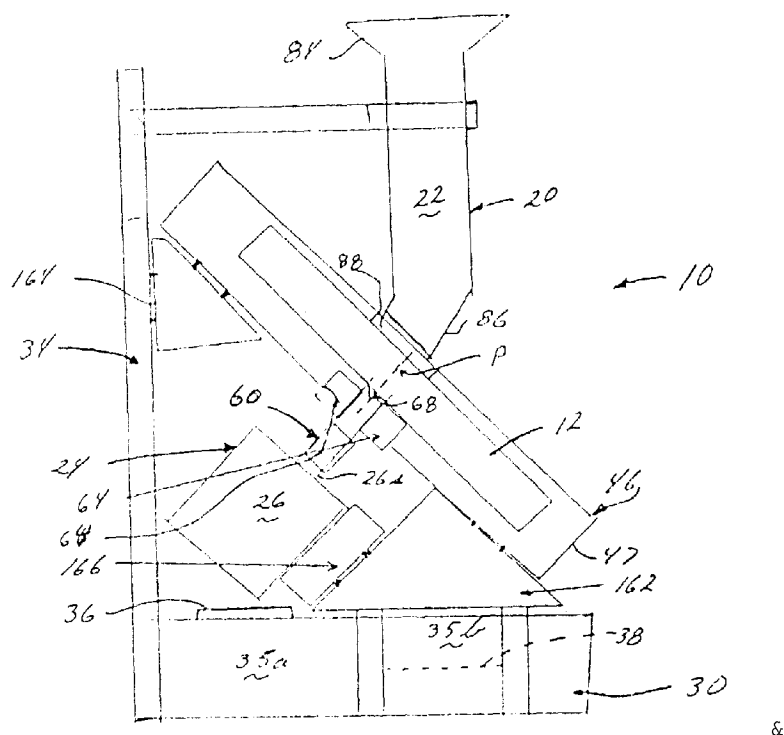
Priority Applications (no., kind, date): US 1995559794 A 19951115

Alerting Abstract CA A

The apparatus includes a **constantly rotating** arm which is **rotatable** about a **pivot** (P). An object which is to be launched is loaded into an inlet of the arm and adjacent to the **pivot**. The object is drawn outwardly by centrifugal **force** from the inlet to an **outer** end of the arm from which the object is launched. The velocity of the object when it is launched is a function of the length of the arm and the speed at which the arm is **rotating**.

A feed assembly (20) holds at least one of the objects and feeds the object into the inlet of the arm. A drive **unit** (24) is able to **rotate** the arm over a range of speeds to control the velocity of the object when it is launched. A circumferential wall inside of which the launch arm **rotates** has an opening through which the object is released when the arm sweeps past the opening. A control panel enables to remotely control the operation of the apparatus. USE/ADVANTAGE - E.g. **baseballs**, **softballs**, **tennis balls**, **squash balls**, **clay pigeons**, **hockey pucks**. Convertible from throwing one type of object to throwing another. **Portable** from storage to use side. Does not damage ball or cover.

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: LAUNCH; APPARATUS; **SPHERE**; **DISC**; SHAPE; OBJECT; **ROTATING**; ARM; **CONSTANTLY**; THROW; LOAD; DRIVE; OUTWARD; CENTRIFUGE; **FORCE**; **OUTER**; END; EJECT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63B-0069/40	A	I		R	20060101
F41B-0003/04	A	I		R	20060101
F41J-0009/18	A	I		R	20060101
A63B-0069/40	C	I		R	20060101
F41B-0003/00	C	I		R	20060101
F41J-0009/00	C	I		R	20060101

ECLA: A63B-069/00H2, A63B-069/40D, F41B-003/04, F41J-009/18

US Classification, Issued: 1246

File Segment: EngPI; EPI;

DWPI Class: W04; Q79

Manual Codes (EPI/S-X): W04-X01A9; W04-X01F

Class Codes International Patent Classification IPC Class Level Scope Position Status Version Date **A63B-0069/40...** **A63B-0069/40...** Original Publication Data by AuthorityArgentina**Publication No. Claims:** Apparatus for launching a **disc**-shaped object used in the practice or play of a sport comprising: launcher means including a **constantly rotating** arm **rotatable about a center pivot**, said arm including a flat plate on which is carried spaced channel forming segments defining a channel through which a **disc**-

shaped object is drawn outwardly by centrifugal **force** toward an **outer** end of the... ... at least one of the objects, said feed means being selectively operable to feed an object into the inlet of the arm; drive means for **constantly rotating** the arm, the drive means being **controllable to rotate** the arm over a range of speeds so as to control the velocity of the object when it is launched; and the launcher means including...

14/12,K/5 (Item 5 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

Derwent WPIX

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0014493127

WPI Acc no: 2004-670594/200466

XRPX Acc No: N2004-531370

Rotational-vibrational drive in toy, Christmas crib, has plate describing circular or elliptical path at each turn of motor, and object on plate moving independently in controlled manner

Patent Assignee: DUSAN P (DUSA-I)

Inventor: DUSAN P

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 1460005	A1	20040922	EP 2004468006	A	20040311	200466	B

Priority Applications (no., kind, date): SI 200368 A 20030319

Regional Designated States: AL AT BE BG CH CY CZ DE DK EE

ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

Alerting Abstract EP A1

NOVELTY - The **plate** attached with a motor, describes a circular or elliptical path at each point for each **turn** of the motor. The objects on the **plate** with slightly slanted flexible bristles **move** forward independently in a controlled **manner** in any direction.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

toy;

Christmas crib; and

teaching aid.

USE - For toy (claimed) with several toy-figures along **plate** representing miniaturized playground such as roads for **cars**, racetracks, paths for animals, town with people, house with dolls, etc. Also for Christmas crib (claimed), teaching aid (claimed) with miniaturized **vehicles** driving along cross roads and traffic signs.

ADVANTAGE - The objects are **moved** one step for each **rotational** cycle which **results** in the steady, **continuous movement** of the objects.

Title Terms /Index Terms/Additional Words: **ROTATING**; **VIBRATION**; **DRIVE**; **TOY**; **CHRISTMAS**; **CRIB**; **PLATE**; **DESCRIBE**; **CIRCULAR**; **ELLIPSE**; **PATH**; **TURN**; **MOTOR**; **OBJECT**; **MOVE**; **INDEPENDENT**; **CONTROL**; **MANNER**

Class Codes

International Patent Classification

IPC	Class	Scope	Position	Status	Version Date
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	Level				
A63H-0018/00	A	I		R	20060101
B65G-0027/04	A	I		R	20060101
B65G-0027/32	A	I		R	20060101
A63H-0018/00	C	I		R	20060101
B65G-0027/00	C	I		R	20060101
B65G-0027/10	C	I		R	20060101

File Segment: EngPI; ;
DWPI Class: P36; Q35

Rotational-vibrational drive in toy, Christmas crib, has plate describing circular or elliptical path at each turn of motor, and object on plate moving independently in controlled manner Alerting Abstract ...The **plate** attached with a motor, describes a circular or elliptical path at each point for each **turn** of the motor. The objects on the **plate** with slightly slanted flexible bristles **move** forward independently in a controlled **manner** in any direction. ... ADVANTAGE - The objects are **moved** one step for each **rotational** cycle which **results** in the steady, **continuous movement** of the objects. **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date **A63H-0018/00... A63H-0018/00...** Original Publication Data by Authority Argentina **Publication No. Original Abstracts: ROTATIONAL-VIBRATIONAL DRIVE** enables independent controlled **movement** of several objects in different directions at the same time on the **plate** with only one **central** motor. This motor **produces rotational** vibrations of the **plate**, so that each **point** of the **plate** describes a circular or elliptical path at each **turn** of the motor. **Objects** on the **plate** are equipped with flexible bristles, slanted in one direction, that enable those objects to push off against the rough surface, thus causing the objects to **move** forward along indented **paths** on the **plate** in any direction.

Toy, using this type of drive, has already been made, as well as the concept for Christmas crib and driving school. **Claims:** What is claimed is A

ROTATIONAL-VIBRATIONAL DRIVE,
CHARACTERIZED IN THAT

a single motor is used to produce **rotational** vibrations of the **base plate**, so that **each** point of the **plate** describes a circular or elliptical path at **each turn** of the motor, while objects on the **plate**, which are equipped with slightly slanted flexible bristles that enable those objects to push off against the **plate** surface, are independently **moving** forward on the **plate** in a controlled **manner** in any direction.

17/12, K/1 (Item 1 from file: 350) Links

Fulltext available through: Order File History

Derwent WPIX

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0009728586

WPI Acc no: 2000-013552/200001

Related WPI Acc No: 2002-224467

XRPX Acc No: N2000-010456

Passenger cabin movement system for amusement ride vehicle

Patent Assignee: UNIVERSAL CITY STUDIOS LLP (UVCI-N); UNIVERSAL STUDIOS INC (UVST-N)

Inventor: GODDARD G; HETTEMA D; HETTEMA P D; MASON D; MASON W D

Patent Number	Kind	Date	Application	Kind	Date	Update	Type
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			Number				
WO 1999056846	A1	19991111	WO 1999US9026	A	19990426	200001	B

Priority Applications (no., kind, date): US 199870950 A 19980501

National Designated States: AE AL AM AT AU AZ BA BB BG BR

BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU

ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD

MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ

TM TR TT UA UG UZ VN YU ZA ZW

Regional Designated States: AT BE CH CY DE DK EA ES FI FR

GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW LI

Alerting Abstract WO A1

NOVELTY - Six screw type actuators (27) connect a **motion base** (22) to a **vehicle** chassis (24), providing the **base** with six degrees of freedom. A **passenger** cabin (30) is connected to the **base** through a yaw drive system (28) which **turns** the cabin up to 360 0 in clockwise or counter clockwise direction.

DESCRIPTION - The **vehicle** chassis is propelled along a predefined track along which several projections screens and **fixed** or movable sceneries are positioned. The **movement** of the **passenger** cabin is controlled to correspond with the visual effects.

USE - For **amusement ride vehicle** which provides **passengers** with unique **motion** and visual experience such as in roller coasters, theme **rides** and **simulators**.

ADVANTAGE - In addition to the pitch, roll, heavy, slip and surge **movements** provided by the **motion base**, the yaw drive systems allows the **passenger** cabin to **spin** thereby heightening the excitement of the **ride**. The yaw drive system allows the cabin to **turn** or point towards the screens and sceneries thereby directing the **passenger's** sight towards the visual effects.

DESCRIPTION OF DRAWINGS - The drawing shows the side view of an **amusement ride vehicle**.

22 **Motion base**

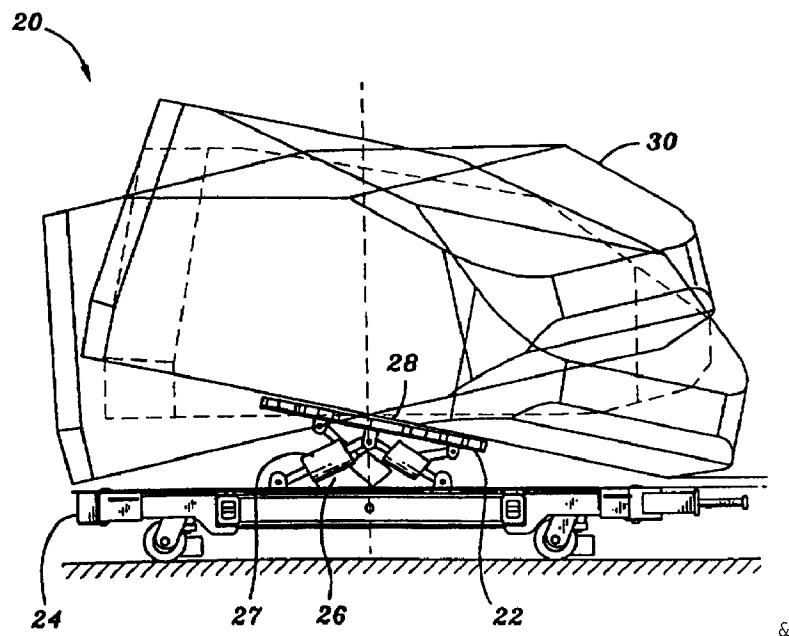
24 **Vehicle** chassis

27 Actuators

28 Yaw drive system

30 Cabin

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: PASSENGER; CABIN; MOVEMENT; SYSTEM; AMUSE; RIDE; VEHICLE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-031/04			Main		"Version 7"
A63G-031/00			Secondary		"Version 7"
A63G-0031/00	A	I	L		20060101
A63G-0031/04	A	I	F		20060101
A63G-0031/16	A	I		R	20060101
A63G-0007/00	A	I		R	20060101
A63G-0031/00	A	I	L	B	20060101
A63G-0031/04	A	I	F	B	20060101
A63G-0031/00	C	I	F		20060101
A63G-0031/00	C	I		R	20060101
A63G-0007/00	C	I		R	20060101
A63G-0031/00	C	I	F	B	20060101

US Classification, Issued: 47259, 47243, 43455, 10485

File Segment: EngPI; ;

DWPI Class: P36

Passenger cabin movement system for amusement ride vehicle ...Original Titles:AMUSEMENT RIDE VEHICLE... ...AMUSEMENT RIDE VEHICLE... ...Amusement ride vehicle... ...AMUSEMENT RIDE VEHICLE Original Publication Data by AuthorityArgentinaPublication No. ...**Original Abstracts:**extends from the vehicle chassis to the passenger cabin, to provide electrical power and audio signals to the passenger cabin. A yaw drive motor (56) turns the yaw ring, allowing the passenger cabin to spin on the motion base, and to provide

continuous yaw movement. The **motion base** provides pitch and roll movements, as well as heave, slip and surge movements... .. assembly extends from the **vehicle** chassis to the **passenger** cabin, to provide electrical power and audio signals to the **passenger** cabin. A yaw drive motor **turns** the yaw **ring**, allowing the **passenger** cabin to **spin** on the **motion base**, and to provide **continuous** yaw movement. The **motion base** provides pitch and roll movements, as well as heave, slip and surge movements... .. extends from the **vehicle** chassis to the **passenger** cabin, to provide electrical power and audio signals to the **passenger** cabin. A yaw drive motor (56) **turns** the yaw **ring**, allowing the **passenger** cabin to **spin** on the **motion base**, and to provide **continuous yaw movement**. The **motion base** provides pitch and roll movements, as well as heave, slip and surge movements...

17/12,K/2 (Item 2 from file: 350) [Links](#)

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0003646639

WPI Acc no: 1986-087255/198613

Amusement ride rotating loading terminal - has endless track conveyor cooperating with revolving circular platform and having vertically disposed conveying surface

Patent Assignee: INTAMIN INC (INTA-N)

Inventor: SAIKO A; SPIELDIENE R

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 4543886	A	19851001	US 1983473812	A	19830309	198613	B

Priority Applications (no., kind, date): US 1983473812 A 19830309

Alerting Abstract US A

The terminal has a **revolving** circular **platform** for **continuous** loading of **passengers** into a series of **moving** circular **vehicles**. The **platform** cooperates with an endless track conveyor to keep the **vehicles revolving** with the **platform** without individual **vehicles spinning** or **rotating** on their own axis. The conveyor has a vertically disposed conveying surface with an arcuate contact portion displaced from and concentric with the periphery of the circular **platform**.

The **vehicles** engage the periphery of the **platform** and the arcuate contact portion of the conveyor and are **moved** with the **platform** a portion of a **revolution** without roll or **spin**.

ADVANTAGE - Convenient loading of **passengers** into **vehicles**.

Title Terms /Index Terms/Additional Words: AMUSE; RIDE; ROTATING; LOAD; TERMINAL; ENDLESS; TRACK; CONVEYOR; COOPERATE; REVOLVING; CIRCULAR; PLATFORM; VERTICAL; DISPOSABLE; CONVEY; SURFACE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-003/02; B61K-001/00			Secondary		"Version 7"

ECLA: A63G-003/02, B62D-057/00

US Classification, Current Main: 104-053000; **Secondary:** 104-021000, 104-059000, 104-073000

US Classification, Issued: 10453, 10421, 10459, 10473

File Segment: EngPI; ;

DWPI Class: P36; Q21

Amusement ride rotating loading terminal... Original Titles: **Amusement ride** including a **rotating** loading terminal **Alerting Abstract** ...The terminal has a **revolving** circular **platform** for **continuous** loading of **passengers** into a series of **moving** circular **vehicles**. The **platform** cooperates with an endless track conveyer to keep the **vehicles revolving** with the **platform** without individual **vehicles spinning** or **rotating** on their own axis... Original Publication Data by Authority Argentina **Publication No. Original Abstracts:** An **amusement ride** loading terminal having a **revolving circular platform** is provided for **continuous loading** of **passengers** into a series of **moving circular vehicles**. The **platform cooperates** with an endless track conveyer to keep the **vehicles revolving** with the **platform without** individual **vehicles spinning** or **rotating** on their own axis. The conveyer has a vertically disposed conveying surface with an arcuate contact portion displaced from and concentric with the periphery of the...

17/12,K/3 (Item 3 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

Derwent WPIX

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0003141576

WPI Acc no: 1984-237455/198438

Amusement ride loading terminal - has rotary platform and endless track conveyor to engage vehicle

Patent Assignee: INTAMIN INC (INTA-N)

Inventor: SALKO A; SPIELDIENE R

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1984003477	A	19840913	WO 1983US311	A	19830309	198438	B

Priority Applications (no., kind, date): WO 1983US311 A 19830309; EP

1983901849 A 19830309

National Designated States: DK

Regional Designated States: AT BE CH DE FR GB LU NL SE LI

Alerting Abstract WO A

The **amusement ride** loading terminal (10) for **passenger** loading of independent **vehicles** (12) has a **revolving circular platform** (32) with an **outer** circular periphery (34). An endless track conveyer has a vertical conveying surface with an arcuate contact portion (42) displaced from, and concentric with the **outer** circular periphery.

Vehicles are engaged between the **outer** periphery of the circular **platform** and the arcuate surface by joint action of both the **platform** and conveyer.

ADVANTAGE - the raft is prevented from rolling.

Title Terms /Index Terms/Additional Words: AMUSE; **RIDE**; LOAD; TERMINAL; **ROTATING**; **PLATFORM**; ENDLESS; TRACK; CONVEYOR; ENGAGE; **VEHICLE**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0003/00	A	I		R	20060101
A63G-0003/00	C	I		R	20060101

ECLA: A63G-003/00

File Segment: EngPI; ;
DWPI Class: Q21

Amusement ride loading terminal... ..Original Titles:AMUSEMENT RIDE LOADING TERMINAL... ..AMUSEMENT RIDE LOADING TERMINAL... ..AMUSEMENT RIDE LOADING TERMINAL Original Publication Data by AuthorityArgentina**Publication No.**
Original Abstracts: An **amusement ride** loading terminal (10) having a **revolving** circular **platform** (32) for **continuous** loading of **passengers** into a series of **moving** circular **vehicles** (12), the **platform** (32) cooperating with an endless track conveyer (36) to keep the **vehicles** (12) **revolving** with (1) the **platform** (32) without individual **vehicles** (12) **spinning** or **rotating** on their own axis, the conveyer (36) having a vertically disposed conveying surface (60) with an arcuate contact portion (42) displaced from and... ..
An **amusement ride** loading terminal (10) having a **revolving** circular **platform** (32) for **continuous** loading of **passengers** into a series of **moving** circular **vehicles** (12), the **platform** (32) cooperating with an endless track conveyer (36) to keep the **vehicles** (12) **revolving** with (1) the **platform** (32) without individual **vehicles** (12) **spinning** or **rotating** on their own axis, the conveyer (36) having a vertically disposed conveying surface (60) with an arcuate contact portion (42) displaced from and...

23/12,K/2 (Item 2 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

Derwent WPIX

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0017728854

WPI Acc no: 2008-F49306/200836

XPX Acc No: N2008-431022

Centrally driven roundabout amusement ride and/or people mover has rider conveyance supported by gimble support, and which provides rocking motion as central hub rotates

Patent Assignee: KITCHEN W J (KITC-I)

Inventor: CHANCE J H; KITCHEN W J

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20080113822	A1	20080515	US 2006559663	A	20061114	200836	B

Priority Applications (no., kind, date): US 2006559663 A 20061114

National Designated States: AE AG AL AM AT AU AZ BA BB BG

BH BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DO DZ EC

EE EG ES FI GB GD GE GH GM GT HN HR HU ID IL IN IS JP

KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LY MA MD ME

MG MK MN MW MX MY MZ NA NG NI NO NZ OM PG PH PL PT RO

RS RU SC SD SE SG SK SL SM SV SY TJ TM TN TR TT TZ UA

UG US UZ VC VN ZA ZM ZW

Regional Designated States: AT BE BG BW CH CY CZ DE DK EA

EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC

MT MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

Alerting Abstract US A1

NOVELTY - The roundabout **ride** (1) includes a support track (5) having a **constant** radius length from a **central hub** (2) having radius arms (3N) and a power source. Each radius arm has an outbound end **affixed** to an axle of a big wheel (7) which **rides** on the track. The axle of the big wheel has an axle assembly (9) including an extension which supports a **rider** conveyance (8). The axle assembly has a gimbaled support for the **rider** conveyance. The **rider** conveyance provides a rocking **motion** as the **central hub** **rotates**.

USE - **Centrally** driven roundabout **amusement ride** and/or people **mover**.

ADVANTAGE - Provides a quiet, smooth weight-bearing wheel. The wheel axle extends several feet off to the side of the wheel to provide a support for a pair of **seats**, external from the powered radius arms. A shield separates the large wheel from the **rider seats**. The **riders** fly around the circular course with nothing in front of them, and will also rock back and forth (optionally) with a gimbaled axle and/or **spin**, making each **ride** different with the rocking **motion** and each **ride** stimulates at high speeds with nothing in front of the **rider**.

DESCRIPTION OF DRAWINGS - The drawing shows the top perspective view of roundabout **ride** with an apron under the **rider** carriage.

1 Roundabout **ride**

2 **Central hub**

3N Radius arms

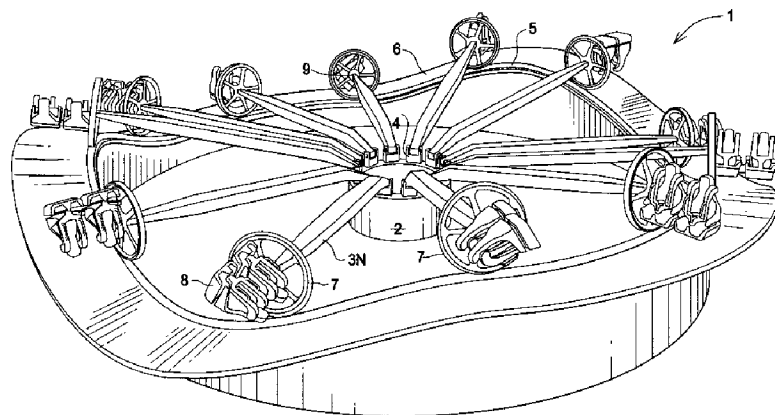
5 Support track

7 Big wheel

8 **Rider** conveyance

9 Axle assembly

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: **CENTRAL**; DRIVE; ROUNDABOUT; AMUSE;
RIDE; PEOPLE; **MOVE**; CONVEY; SUPPORT; ROCK; **MOTION**; **HUB**; **ROTATING**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0001/10	A	I	F	B	20060101
A63G-0001/24	A	I	F	B	20060101
A63G-0001/00	C	I		B	20060101

US Classification, Issued: 47243

File Segment: EngPI; ;
DWPI Class: P36

Centrally driven roundabout amusement ride and/or people mover has rider conveyance supported by gimble support, and which provides rocking motion as central hub rotates Original Titles:Big Wheel Roundabout **Amusement Ride ...**
...BIG WHEEL ROUNDABOUT **AMUSEMENT RIDE Alerting Abstract ...NOVELTY** - The roundabout **ride** (1) includes a support track (5) having a **constant** radius length from a **central hub** (2) having radius arms (3N) and a power source. Each radius arm has an outbound end **affixed** to an axle of a big wheel (7...
...supports a **rider** conveyance (8). The axle assembly has a gimbaled support for the **rider** conveyance. The **rider** conveyance provides a rocking **motion** as the **central hub rotates**. USE - **Centrally driven roundabout amusement ride and/or people mover...** ...the wheel to provide a support for a pair of **seats**, external from the powered radius arms. A shield separates the large wheel from the **rider seats**. The **riders** fly around the circular course with nothing in front of them, and will also rock back and forth (optionally) with a gimbaled axle and/or...
...2 **Central hub Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date **A63G-0001/10...** ...**A63G-0001/24 A63G-0001/00...** Original Publication Data by AuthorityArgentina**Publication No. ...Original Abstracts:**L'invention concerne une voie (6) qui peut etre **plate** ou vallonnee. La **circulation** sur la voie est une grande roue (7) ayant des dimensions plus importantes qu'un compartiment (8) de conducteur. Le compartiment de conducteur est supporte...
Claims:We claim:**1.** A roundabout **ride** comprising:a track having a **constant** radius length from a **central hub**;said **central hub** having a plurality of radius arms **affixed** to the **hub**;said **central hub** having a power source to **rotate** the **central hub**;each radius arm having an outbound end **affixed** to an axle of a wheel which **rides** on the track;said axle of said wheel having...
... **rider carriage**;said axle assembly further comprising a gimbaled support for the **rider carriage**; andwherein said **rider carriage** provides a rocking **motion** as the **central hub rotates**.

23/12,K/5 (Item 5 from file: 350) Links

Fulltext available through: Order File History
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0016664104

WPI Acc no: 2007-379188/200736

XRPX Acc No: N2007-283195

Device to lift boats or vehicles on pleasure attraction whereby they descend an elevated departure point along a pathway to arrival point where they are lifted by a revolving tower with dual platforms back to departure point

Patent Assignee: WALSER W (WALS-I)

Inventor: WALSER W

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 1757348	A1	20070228	EP 200518247	A	20050823	200736	B

Priority Applications (no., kind, date): EP 200518247 A 20050823

Regional Designated States: AL AT BA BE BG CH CY CZ DE DK

EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL

PL PT RO SE SI SK TR YU

Alerting Abstract EP A1

NOVELTY - The boats or **vehicles** descend along a pathway (1) from an elevated departure point (10) essentially through the **force of gravity** to an arrival point (6). The boats are lifted from the arrival point to the departure point again by means of a vertically driven lifting device. The lifting device is embodied as a **revolving tower** (3) **fixed** to the ground on whose exterior are dual running lifting **platforms** (4,5) to take the boats from the arrival point on the routeway, to lift them along the **revolving tower** and to deliver the boats at the departure point.

USE - The device is used on pleasure attractions in **fairgrounds** or water parks.

ADVANTAGE - The lift arrangement takes up little **space**, is simple to construct and offers the user a pleasurable experience when being lifted up.

DESCRIPTION OF DRAWINGS - The drawing shows a side view of the pleasure attraction.

1 pathway

3 **revolving tower**

4,5 lifting **platforms**

6 arrival point

10 departure point

Main Drawing Sheet(s) or Clipped Structure(s)

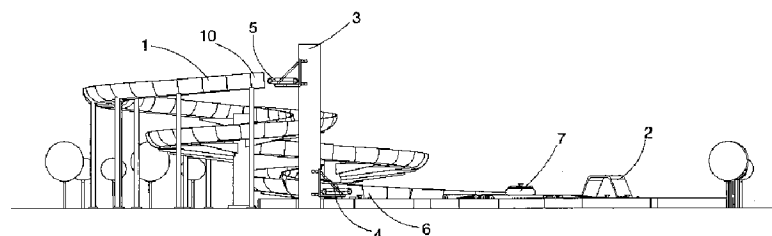


Fig. 1

&

Title Terms /Index Terms/Additional Words: DEVICE; LIFT; BOAT; **VEHICLE**; PLEASURE; ATTRACT; DESCEND; ELEVATE; DEPART; POINT; PATH; ARRIVE; **REVOLVING**; **TOWER**; **PLATFORM**; BACK

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0021/04	A	I	L	B	20060101
A63G-0031/10	A	I	F	B	20060101
A63G-0021/04	A	I	L		20060101
A63G-0031/10	A	I	F		20060101
A63G-0021/00	C	I		B	20060101
A63G-0031/00	C	I		B	20060101
A63G-0021/00	C	I	L	B	20060101
A63G-0021/00	C	I			20060101
A63G-0031/00	C	I	F	B	20060101
A63G-0031/00	C	I			20060101

File Segment: EngPI; ;

DWPI Class: P36

...boats or vehicles on pleasure attraction whereby they descend an elevated departure point along a pathway to arrival point where they are lifted by a revolving tower with dual platforms back to departure point Alerting Abstract

...from the arrival point to the departure point again by means of a vertically driven lifting device. The lifting device is embodied as a revolving tower (3) fixed to the ground on whose exterior are dual running lifting platforms (4,5) to take the boats from the arrival point on the routeway, to... **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date A63G-0021/04... ...A63G-0031/10...
 ...A63G-0021/04... ...A63G-0031/10 A63G-0021/00... ...A63G-0031/00...
 ...A63G-0021/00... ...A63G-0021/00... ...A63G-0031/00... ...A63G-0031/00

Original Publication Data by AuthorityArgentinaPublication No.

...**Claims:**Device for lifting **vehicles**, in particular boats (7, 12) or the like, of an **amusement** park **ride**, wherein the **vehicles** are transferred along a guideway (1) from an elevated departure point (10) substantially by gravitational **movement** to an arrival point (6) and the **vehicles** are... order to transfer the **vehicles** from the guideway (1) onto a lifting platform (4), and that the lifting platforms (4, 5) each comprise a live ring to enable a **rotation** of the **vehicles** on the lifting platform... a une plate-forme de levage (4), et en ce que les plates-formes (4, 5) comportent chacune une couronne de pivotement pour permettre une **rotation** des **vehicules** sur la plate-forme de levage.

23/12,K/8 (Item 8 from file: 350) LinksFulltext available through: Order File History

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0015731259

WPI Acc no: 2006-293149/200630

XRPX Acc No: N2006-250002

Riding device, has seat plate positioned over intermediate base and having four corners respectively provided with connecting lug, and transmission unit provided with motor drives three gears to rotate synchronously

Patent Assignee: TONIC FITNESS TECHNOLOGY INC (TONI-N)

Inventor: TSAI S; TSAI S C

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060088808	A1	20060427	US 2004972419	A	20041026	200630	B

Priority Applications (no., kind, date): US 2004972419 A 20041026

Alerting Abstract US A1

NOVELTY - The device has a **seat plate** (30) positioned over an **intermediate base** (20) and having four corners respectively provided with a connecting lug that is respectively and **pivotal** connected with the upper ends of front and rear swing arms. A **transmission unit** (40) **fixed** on the **intermediate base**, is provided with a motor for driving three gears to **rotate** synchronously. A pull rod is connected with a bottom **base**.

USE - **Riding** device.

ADVANTAGE - The transmission **unit** provided with the motor drives the three gears to **rotate** synchronously, thus actuating the **seat plate** to swing back and forth, swing up and down and swing left and right obliquely, and hence effectively **simulating** the **movements** of horse **riding**.

DESCRIPTION OF DRAWINGS - The drawing shows a side cross-sectional view of a **riding** device.

20 **Intermediate base**

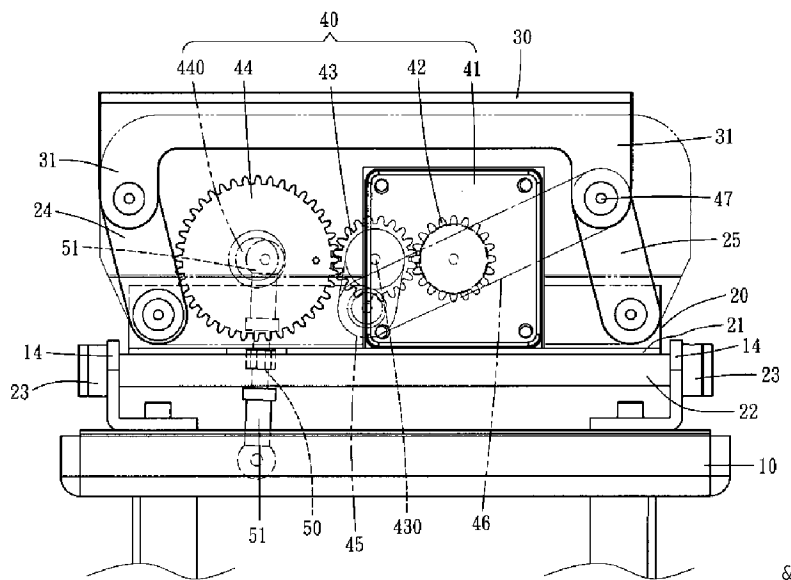
30 **Seat plate**

40 **Transmission unit**

42, 43, 44 Gears

50 Pull rod

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: **RIDE**; **DEVICE**; **SEAT**; **PLATE**; **POSITION**; **INTERMEDIATE**; **BASE**; **FOUR**; **CORNER**; **RESPECTIVE**; **CONNECT**; **LUG**; **TRANSMISSION**; **UNIT**; **MOTOR**; **DRIVE**; **THREE**; **GEAR**; **ROTATING**; **SYNCHRONOUS**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63B-0022/00	A	I	F	B	20060101
A63B-0069/00	A	I	F	B	20060101
G09B-0019/00	A	I	L	B	20060101
A63B-0022/00	C	I	F	B	20060101
A63B-0069/00	C	I	L	B	20060101
G09B-0019/00	C	I	L	B	20060101

US Classification, Issued: 434247, 48251, 47295, 47297

File Segment: EngPI; ;
DWPI Class: P36; P85

Riding device, has seat plate positioned over intermediate base and having four corners respectively provided with connecting lug, and transmission unit provided with motor drives three gears to rotate synchronously Alerting Abstract ...NOVELTY - The device has a seat plate (30) positioned over an intermediate base (20) and having four corners respectively provided with a connecting lug that is respectively and pivotally connected with the upper ends of front and rear swing arms. A transmission unit (40) fixed on the intermediate base, is provided with a motor for driving three gears to rotate synchronously. A pull rod is connected with a bottom base. ...ADVANTAGE - The transmission unit provided with the motor drives the three gears to rotate synchronously, thus actuating the seat plate to swing back and forth, swing up and down and swing left and right obliquely, and hence effectively simulating the movements of horse riding... ...20 Intermediate base Class Codes International Patent Classification IPC Class Level Scope Position Status Version Date A63B-0022/00... ...A63B-0069/00 A63B-0022/00... ...A63B-0069/00 Original Publication Data by AuthorityArgentinaPublication No. Original Abstracts:A riding device includes a bottom base and an intermediate base pivotally positioned on the bottom base and having its front and rear end respectively and pivotally provided with two front and two rear swing arms. A seat plate positioned over the intermediate base has four corners with a connecting lug connected with the upper ends of the swing arms. A transmission unit fixed on the intermediate base has a motor for driving a first, a second and a third gear to rotate synchronously. A crank is secured on the shaft of the... ... A riding device includes a bottom base and an intermediate base pivotally positioned on the bottom base and having its front and rear end respectively and pivotally provided with two front and two rear swing arms. A seat plate positioned over the intermediate base has four corners with a connecting lug connected with the upper ends of the swing arms. A transmission unit fixed on the intermediate base has a motor for driving a first, a second and a third gear to rotate synchronously. A crank is secured on the shaft of the... Claims:I Claim:1. A riding device comprising:A bottom base able to be placed on a flat surface:An intermediate base positioned on said bottom base, said intermediate base having its front and rear end pivotally combined with said bottom base, said intermediate base having the opposite sides of its front and rear end respectively and pivotally connected with two front swing arms and two rear swing arms:A seat plate positioned over said intermediate base, said seat plate having four corners respectively provided with a connecting lug extending downward, said four connecting lugs respectively and pivotally connected with the upper ends of said... ... front and said rear swing arms, said seat plate provided with

a cushion on its topside for a user to sit thereon; A transmission **unit fixed** on said **intermediate base**, said transmission **unit** provided with a motor for driving a first gear, a **second** gear and a **third** gear to **rotate** synchronously, said **second** gear... .. having its upper and lower **turning** end respectively provided with a universal **bearing**, said universal **bearings** preventing said pull rod from **rotating** together with said **third** gear: and Said **seat plate** able to be actuated to swing back and forth, swing up and down and swing left and right obliquely... .. I claim: 1. A **riding** device comprising: a bottom **base** able to be placed on a flat surface; an **intermediate base** positioned on said bottom **base**, said **intermediate base** having its front and rear end **pivotally** combined with said bottom **base**, said **intermediate base** having the opposite sides of its front and rear end respectively and **pivotally** connected with two front swing arms and two rear swing arms; a **seat plate** positioned over said **intermediate base**, said **seat plate** having four corners respectively provided with a connecting lug extending downward, said four connecting lugs respectively and **pivotally** connected with the upper ends of said... .. front and said rear swing arms, said **seat plate** provided with a cushion on its topside for a user to sit thereon; a transmission **unit fixed** on said **intermediate base**, said transmission **unit** provided with a motor for driving a first gear, a **second** gear and a **third** gear to **rotate** synchronously, said **second** gear... .. having its upper and lower **turning** end respectively provided with a universal **bearing**, said universal **bearings** preventing said pull rod from **rotating** together with said **third** gear; and said **seat plate** able to be actuated to swing back and forth, swing up and down and swing left and right obliquely.

23/12,K/10 (Item 10 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0015239245

WPI Acc no: 2005-589317/200560

XRPX Acc No: N2005-483293

Amusement swing for children, creates translation force on frame to allow rider to start rotate around center pivotal point, when handles are grabbed and moved forward and backward

Patent Assignee: RAMALINGUM D (RAMA-I)

Inventor: BALLMICK C P

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6929551	B1	20050816	US 2004935397	A	20040908	200560	B

Priority Applications (no., kind, date): US 2004935397 A 20040908

Alerting Abstract US B1

NOVELTY - The swing has footrest frames **fixed** under lapped beams. Handle frames which are formed above footrest are hinged to beams and equipped with handle (9) for each **rider** to hold on with both hands. The handle frames have short cross pin to which connecting rods (7) are hinged. A translation **force** is created on frame to allow **rider** to start **rotate** around **center pivotal** point, when handles are grabbed and **moved** forward/backward.

USE - **Amusement** swing for recreation, enjoyment and relaxation for children and adults.

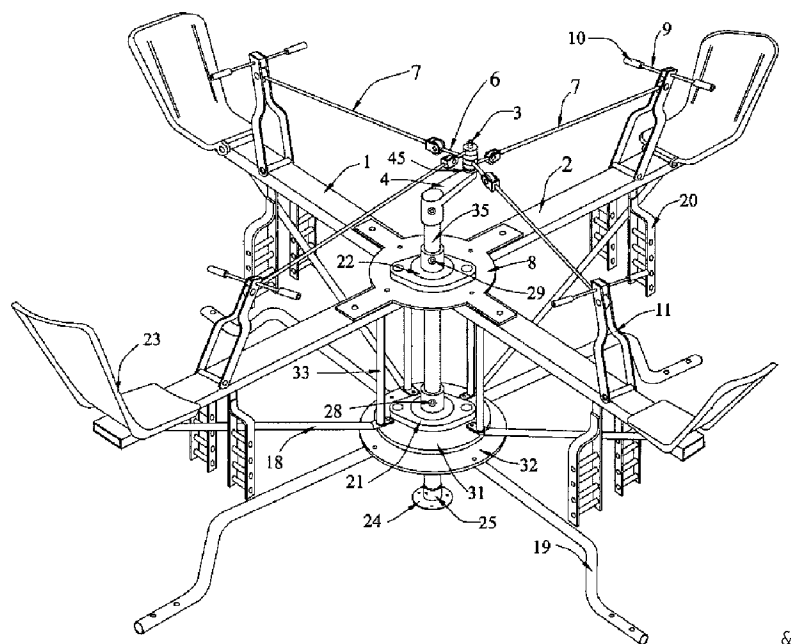
ADVANTAGE - Provides a swing that is operated easily without using

electricity, battery, torsional **springs** to cause **motion**, that is safe to user and can be assembled and disassembled without any special tools or fixtures. A swing with durable, safe and reliable construction, with low altitude and very low injury potential for its **riders**, is provided.

DESCRIPTION OF DRAWINGS - The figure shows an isometric view of the **amusement** swing.

1,2 main beams
7 connecting rods
9 handle
25 boss
32 flange

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: AMUSE; SWING; CHILD; TRANSLATION; **FORCE**; FRAME; ALLOW; **RIDE**; START; **ROTATING**; **PIVOT**; POINT; HANDLE; GRAB; **MOVE**; FORWARD; BACKWARD

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-001/12			Main		"Version 7"

US Classification, Issued: 47221, 472108

File Segment: EngPI; ;
DWPI Class: P36

Class Codes International Patent Classification IPC Class Level Scope
Position Status Version Date **A63G-001/12** Main Original Publication Data by
AuthorityArgentina**Publication No. ...Original Abstracts:**top of the centre

shaft by means of a boss. The boss is welded to the bottom of the larger side of the cam-shaped **plate.Fixed** on the underside of each of the **lapped** beams, at the **outer** ends **near** to where each person sits, are footrest frames. Directly above these footrests are handle frames that are hinged to the beams and have a handle... .. hinged. The other ends of these connecting rods are hinged to the vertical offset pin with interconnecting short knuckle linkages. These short linkages have two **rings** at each end that are **turned** horizontal and vertical. Any one out of **the** four **riders** can operate the **swing**. By grabbing the handles and **moving** them forward and backward creates a translation **force** on the frame to allow the **rider** to start **rotate** around...
...Claims: in a horizontal plane, comprising of: a vertically extending cylindrical main centre post with an upper end and a lower end, having said lower end **fixed** to a flat **base plate** which is **anchored to** a floor surface; a stabilizing flange welded onto said main post at a predetermined position substantially between mid-point thereof and said lower end and... .. a hole therethrough at a centre thereof passing through said junction and said flat reinforcement **plate**, bore of said hole is substantially larger than the **outside** diameter of said main post with said main post passing **centrally** therethrough, said lapped beams thus having four radially extending free ends thereof; a centre support structure... .. of said extending ends of the lapped beams while said lower ends are secured to the lower end of said centre support structure; four bucket **seats** for **riders** to sit on, facing inward towards the main post and mounted on said lapped beams **at** said **extending** ends thereof; actuator means which comprises of four handle frames, four connecting rods and four knuckle linkages, said handle frames having top and bottom ends... .. said connecting rods while the **second** ends are connected to said vertical crank pin; one upper and one lower flanged mounted type ball bearings having **inner** and **outer rings**, said **inner rings** have at least two setscrews while the **outer rings** are **fixed** to the flanges thereof, said flanges **have at** least two **equally spaced** bolt holes; four footrests **fixed** to **and depending** substantially vertically downwards from said extending ends of the lapped beams at a predetermined position thereof front of said **seats**; **anchoring** means which comprises of...

23/12, K/12 (Item 12 from file: 350) [Links](#)

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0014814849

WPI Acc no: 2005-162538/200517

XRPX Acc No: N2005-136413

Pneumatic motion platform for use in amusement ride vehicle, has fluid controller in fluid communication with inflatable actuators adapted for use as active motive force with respect to deck in several planes

Patent Assignee: FOSTER S T (FOST-I); FROMYER S F (FROM-I); JENNINGS C A

(JENN-I); KING E A (KING-I); OCEANEERING INT INC (OCEA-N); WELSH B M (WELS-I)

Inventor: FOSTER S T; FROMYER S E; FROMYER S F; JENNINGS C A; KING E A; WELSH

B M; FOSTER S; FROMYER S; JENNINGS C; KING E; WELSH B

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005009790	A2	20050203	WO 2004US23619	A	20040721	200517	B

Priority Applications (no., kind, date): US 2003489267 P 20030722; US

2004781126 A 20040218

National Designated States: AE AG AL AM AT AU AZ BA BB BG

BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG

ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
 KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI
 NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM
 TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
 Regional Designated States: AT BE BG BW CH CY CZ DE DK EA
 EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA
 NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW LI

Alerting Abstract WO A2

NOVELTY - The **motion platform** (10) has a fluid controller in fluid communication with several **inflatable** actuators attached to a deck (60) or a **base** (11). The actuators are adapted for use as active motive **force** with respect to the deck in several planes. Compliant stabilizers are disposed **intermediate** the deck and **base**.

DESCRIPTION - A fluid source is linked with the fluid controller. A portion of each stabilizer is disposed proximate a predetermined **inflatable** actuator. Each **inflatable** actuator is attached at a predetermined location **intermediate** the **base** and the deck. INDEPENDENT CLAIMS are also included for the following:

Amusement ride vehicle in which the pneumatic **motion platform** is used;

Amusement ride system;

Providing for independent, simultaneous, three-axis **motion** of a deck mounted to a **base**; and

Providing an **amusement ride** system.

USE - For use in stimulators and **amusement rides**.

ADVANTAGE - Provides pneumatic **motion platform** that can be actuated under the control of a programmable controller by selectively adding or **removing** e.g. air from one **inflatable** actuator positioned at a predetermined portion of the pneumatic **motion platform**. Includes **inflatable** actuators whose combined and relative operation can be used to produce pitch, roll and heave **motion** to **amusement ride vehicle**.

DESCRIPTION OF DRAWINGS - The figure is a partial perspective view illustrating the **motion platform**, rotor and deck.

10 Pneumatic **motion platform**

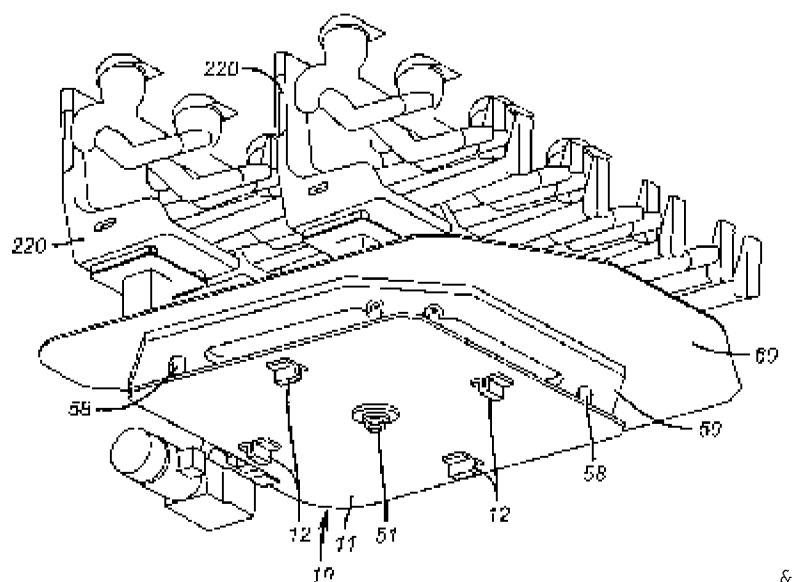
11 **Base**

50 **Rotator**

58 **Swivel** casters

60 Deck

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: PNEUMATIC; **MOTION**; **PLATFORM**; AMUSE; **RIDE**; **VEHICLE**; FLUID; CONTROL; COMMUNICATE; INFLATE; ACTUATE; ADAPT; ACTIVE; MOTIVE; **FORCE**; RESPECT; DECK; PLANE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
G09B-009/02			Main		"Version 7"
A63G-0031/02	A	I	L	B	20060101
A63G-0031/04	A	I	F	B	20060101
A63G-0031/16	A	I	F	B	20060101
G09B-0009/02	A	I		R	20060101
G09B-0009/02	A	I	F		20060101
G09B-0009/02	A	I	F	B	20060101
A63G-0031/00	C	I	F	B	20060101
B60R	S	I		R	20060101
G09B-0009/02	C	I		R	20060101
G09B-0009/02	C	I	L	B	20060101
G09B-0009/02	C	I		B	20060101
G09B-0009/02	C	I			20060101

US Classification, Issued: 43429, 47259, 472130, 43455

File Segment: EngPI; EPI;

DWPI Class: W04; P85; Q17; P36

Manual Codes (EPI/S-X): W04-W07E5; W04-X03G3

Pneumatic motion platform for use in amusement ride vehicle, has fluid controller in fluid communication with inflatable actuators adapted for use as active motive force with respect to deck in several planes ...Original Titles:AMUSEMENT RIDE VEHICLE WITH PNEUMATICALLY ACTUATED CABIN AND **MOTION BASE**... ...Amusement ride vehicle with pneumatically actuated cabin and motion base... ...Amusement ride vehicle with pneumatically actuated cabin

and **motion base**... ...**AMUSEMENT RIDE VEHICLE** WITH PNEUMATICALLY ACTUATED CABIN AND **MOTION BASE** Alerting Abstract ...**NOVELTY** - The **motion platform** (10) has a fluid controller in fluid communication with several inflatable actuators attached to a deck (60) or a **base** (11). The actuators are adapted for use as active motive **force** with respect to the deck in several planes. Compliant stabilizers are disposed **intermediate** the deck and **base**. ... with the fluid controller. A portion of each stabilizer is disposed proximate a predetermined inflatable actuator. Each inflatable actuator is attached at a predetermined location **intermediate** the **base** and the deck. INDEPENDENT CLAIMS are also included for the following... ... **Amusement ride vehicle** in which the pneumatic **motion platform** is used; **Amusement ride** system; Providing for independent, simultaneous, three-axis **motion** of a deck mounted to a **base**; and Providing an **amusement ride** system... ... **USE** - For use in stimulators and **amusement rides**.... ... **ADVANTAGE** - Provides pneumatic **motion platform** that can be actuated under the control of a programmable controller by selectively adding or removing e.g. air from one inflatable actuator positioned at a predetermined portion of the pneumatic **motion platform**. Includes inflatable actuators whose combined and relative operation can be used to produce pitch, roll and heave **motion** to **amusement ride vehicle**.... ... **DESCRIPTION OF DRAWINGS** - The figure is a partial perspective view illustrating the **motion platform**, rotor and deck... ... **10 Pneumatic motion platform Class Codes**

International Patent Classification	IPC Class	Level	Scope	Position	Status
Version Date	A63G-0031/02	...	A63G-0031/04	...	A63G-0031/16
A63G-0031/00

Original Publication Data by AuthorityArgentinaPublication No. Original Abstracts:A pneumatic **motion platform** is disclosed, adapted to allow an open **center** to handle shear stress without the need for a **central** support. In an embodiment. The **platform** comprises a deck; a **base**; a plurality of inflatable actuators, each actuator attached to the deck at a predetermined location **intermediate** the **base** and the deck, the plurality of inflatable actuators adapted for use as an active motive **force** with respect to the deck in a plurality of planes; a plurality of compliant stabilizers disposed **intermediate** the deck and the **base**, at least one portion of each stabilizer disposed proximate a predetermined one of the plurality of inflatable actuators; a fluid controller in fluid communication with the plurality of inflatable actuators; and a source of fluid in fluid communication with the fluid controller. A **ride vehicle** may comprise a cabin attached to a deck attached to the **motion platform** attached to a **rotator** such as a **turntable**. It is emphasized that this abstract is provided to comply with the rules requiring an abstract which will allow a searcher... ... A pneumatic **motion platform** is disclosed, adapted to allow an open **center** to handle shear stress without the need for a **central** support. In an embodiment, the **platform** comprises a deck; a **base**; a plurality of inflatable actuators, each actuator attached to the deck at a predetermined location **intermediate** the **base** and the deck, the plurality of inflatable actuators adapted for use as an active motive **force** with respect to the deck in a plurality of planes; a plurality of compliant stabilizers disposed **intermediate** the deck and the **base**, at least one portion of each stabilizer disposed proximate a predetermined one of the plurality of inflatable actuators; a fluid controller in fluid communication with the plurality of inflatable actuators; and a source of fluid in fluid communication with the fluid controller. A **ride vehicle** may comprise a cabin attached to a deck attached to the **motion platform** attached to a **rotator** such as a **turntable**. It is emphasized that this abstract is provided to comply with the rules requiring an abstract which will allow a searcher... ... A pneumatic **motion platform** is disclosed, adapted to allow an open **center** to handle shear stress without the need for a **central** support. In an embodiment, the **platform** comprises a deck; a **base**; a plurality of inflatable actuators, each actuator attached to the deck at a predetermined

location **intermediate** the **base** and the deck, the plurality of inflatable actuators adapted for use as an active motive **force** with respect to the deck in a plurality of planes; a plurality of compliant stabilizers disposed **intermediate** the deck and the **base**, at least one portion of each stabilizer disposed proximate a predetermined one of the plurality of inflatable actuators; a fluid controller in fluid communication with the plurality of inflatable actuators; and a source of fluid in fluid communication with the fluid controller. A **ride vehicle** may comprise a cabin attached to a deck attached to the **motion platform** attached to a **rotator** such as a **turntable**. It is emphasized that this abstract is provided to comply with the rules requiring an abstract which will allow a searcher... .. A pneumatic **motion platform** is **disclosed**, adapted to allow an open **center** to handle shear stress without the need for a **central** support. In an embodiment. The **platform** comprises a deck; a **base**; a plurality of inflatable actuators, each actuator attached to the deck at a predetermined location **intermediate** the **base** and the deck, the plurality of inflatable actuators adapted for use as an active motive **force** with respect to the deck in a plurality of planes; a plurality of compliant stabilizers disposed **intermediate** the deck and the **base**, at least one portion of each stabilizer disposed proximate a predetermined one of the plurality of inflatable actuators; a fluid controller in fluid communication with the plurality of inflatable actuators; and a source of fluid in fluid communication with the fluid controller. A **ride vehicle** may comprise a cabin attached to a deck attached to the **motion platform** attached to a **rotator** such as a **turntable**. It is emphasized that this abstract is provided to comply with the rules requiring an abstract which will allow a searcher... une source de fluide en communication avec le regulateur de fluide. Un **vehicule** de manège peut comporter une cabine fixée au plancher solidarise a la **plate**-forme de mouvement attachee a un **rotateur** tel qu'une plaque tournante. Il est souligne que le present abrege est fourni en conformite avec les regles exigeant un abrege permettant une comprehension... **Claims:1.** A pneumatic **motion platform**, comprising:a. a deck;b. a **base**;c. a plurality of inflatable actuators, each actuator attached to at least one of the deck or **base** at a predetermined location **intermediate** the **base** and the deck, the plurality of inflatable actuators adapted for use as an active motive **force** with respect to the deck in a plurality of planes;d. a plurality of compliant stabilizers disposed **intermediate** the deck and the **base**, at least one portion of each stabilizer disposed proximate a predetermined one of the plurality of inflatable actuators;e. a fluid controller in fluid communication... .. What is claimed is:1. A pneumatic **motion platform**, comprising: a. a deck;b. a **base**;c. a plurality of inflatable actuators, each actuator attached to at least one of the deck or **base** at a predetermined location **intermediate** the **base** and the deck, the plurality of inflatable actuators adapted for use as an active motive **force** with respect to the deck in a plurality of planes;d. a plurality of compliant stabilizers disposed **intermediate** the deck and the **base**, at least one portion of each stabilizer disposed proximate a predetermined one of the plurality of inflatable actuators;e. a fluid controller in fluid communication...

23/12,K/21 (Item 21 from file: 350) [Links](#)

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0012426724

WPI Acc no: 2002-371634/200240

XRPX Acc No: N2002-290446

Amusement ride with pivotable motion base to simulate car street racing using

eccentrically pivoted audience platform pivoted by motor acting through eccentric pivot

Patent Assignee: UNIVERSAL CITY STUDIOS INC (UVC-I-N)

Inventor: DROBNIS N H

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2002013934	A1	20020221	WO 2001US22710	A	20010718	200240	B

Priority Applications (no., kind, date): US 2000638644 A 20000814

National Designated States: AE AG AL AM AT AU AZ BA BB BG

BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI

GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC

LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT

RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Regional Designated States: AT BE CH CY DE DK EA ES FI FR

GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL

SZ TR TZ UG ZW AL LI LT LV MK RO SI

Alerting Abstract WO A1

NOVELTY - An audience **platform** (6) is eccentrically **pivoted** to a **motion base** (4) and **pivots** about an offset **pivot** (20) so that the **movement forces** the audience back into their **seats**. The **motion base** is connected by actuators to the floor and the actuators are computer controlled to impart **movement** in multiple degrees of freedom. The audience faces a projection screen (8) onto which images or a **motion picture** are projected so **simulate vehicle movement**.

DESCRIPTION - AN INDEPENDENT CLAIM is included for a method of providing fishtail type **movement** on a **motion base amusement ride**.

USE - **Simulating car motion in amusement ride**.

ADVANTAGE - Providing multiple degrees of freedom.

DESCRIPTION OF DRAWINGS - The drawing shows a **ride**

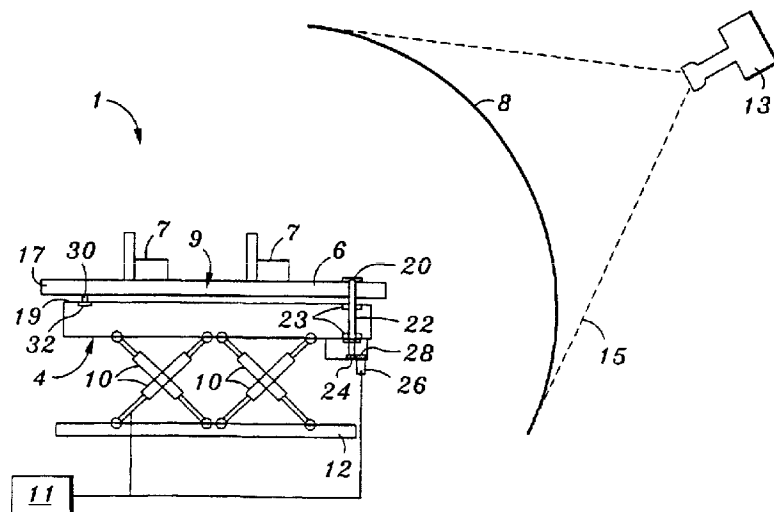
6 **Platform**

4 **Motion base**

8 Projection screen

10 Actuators

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: AMUSE; **RIDE**; **PIVOT**; **MOTION**; **BASE**; **SIMULATE**; **CAR**; **STREET**; **RACE**; **ECCENTRIC**; **AUDIENCE**; **PLATFORM**; **MOTOR**; **ACT**; **THROUGH**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-031/04			Main		"Version 7"
A63G-0031/04	A	I	F	R	20060101
A63G-0031/16	A	I	F	B	20060101
A63G-0031/16	A	I		R	20060101
A63G-0031/00	C	I	F	B	20060101
A63G-0031/00	C	I		R	20060101

US Classification, Issued: 47261, 472130, 43455, 47260

File Segment: EngPI; EPI;

DWPI Class: W04; P36

Manual Codes (EPI/S-X): W04-X03G3

Amusement ride with pivotable motion base to simulate car street racing using eccentrically pivoted audience platform pivoted by motor acting through eccentric pivot ...Original Titles:AMUSEMENT RIDE WITH PIVOTABLE MOTION BASE... ...Amusement ride with pivotable motion base... ...AMUSEMENT RIDE WITH PIVOTABLE MOTION BASE Alerting Abstract ...NOVELTY - An audience platform (6) is eccentrically pivoted to a motion base (4) and pivots about an offset pivot (20) so that the movement forces the audience back into their seats. The motion ... DESCRIPTION - AN INDEPENDENT CLAIM is included for a method of providing fishtail type movement on a motion base amusement ride. ... USE - Simulating car motion in amusement ride. Class Codes

International Patent Classification IPC Class Level Scope Position Status
Version Date A63G-031/04 Main A63G-0031/04... ...A63G-0031/16... ...A63G-0031/16 A63G-0031/00... ...A63G-0031/00 Original Publication Data by
AuthorityArgentinaPublication No. Original Abstracts:An amusement ride includes a motion base (4) having multiple degrees of freedom. An audience platform (6) is eccentrically pivotable on top of the motion base about a pivot point (20) that is eccentrically offset from a central region of the audience platform. A motor (26) disposed on either the motion base (4) or the audience platform (6) is used to pivot the audience platform via a shaft. A projection screen (8) is located either on board or off board and is used to display images or a motion picture. The amusement ride simulates fishtailing, slide out, and similar movements experienced as a vehicle turns... ... An amusement ride includes a motion base having multiple degrees of freedom. An audience platform is eccentrically pivotable on top of the motion base about a pivot point that is eccentrically offset from a central region of the audience platform. A motor disposed on either the motion base or the audience platform is used to pivot the audience platform via a shaft. A projection screen is located either on board or off board and is used to display images or a motion picture. The amusement ride simulates fishtailing, slide out, and similar movements experienced as a vehicle turns... ... An amusement ride includes a motion base (4) having multiple degrees of freedom. An audience platform (6) is eccentrically pivotable on top of the motion base about a pivot point (20) that is eccentrically offset from a central region of the

audience **platform**. A motor (26) disposed on either the **motion base** (4) or the audience **platform** (6) is used to **pivot** the audience **platform** via a shaft. A projection **screen** (8) is located either **on** board or **off** board and is used to display images or a **motion picture**. The **amusement ride simulates** fishtailing, slide out, and similar **movements** experienced as a **vehicle turns**. possedant plusieurs degres de liberte. Une **plate-forme** pour le public (6) peut **pivoter** de **maniere** excentrique sur le sommet de la **base** mobile par **rapport** a un point de **pivotement** (20) qui est excentriquement decale par rapport a une region **centrale** de la **plate-forme** pour le public. Un moteur (26) dispose sur la **base** mobile (4) ou la **plate-forme** pour le public (6) sert a **faire pivoter** la **plate-forme** pour le public par le biais d'un arbre. Un ecran de projection (8) dispose **sur** la **plate-forme** ou a l'exterieur de celle-ci sert a afficher des images ou un film. Le **manege** simule les mouvements en queue de poisson
Claims:What is claimed is:1. An **amusement ride** comprising:a **motion base**;a **projection screen** adjacent to the **motion base**;an audience **platform** **pivotable** about a **pivot** point offset **from a central** region of the **audience platform**; anda **motor** mechanically coupled to the **audience platform** via a **rotatable shaft** at the **pivot** point.

23/12,K/26 (Item 26 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

Derwent WPIX

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0010033180

WPI Acc no: 2000-337958/200029

XRPX Acc No: N2000-253609

Centripetal acceleration apparatus for amusement park riders, has pods rotatably fixed in flying platform, and rotated about a central axis of orbit, for effecting centrifugal force on at least one end

Patent Assignee: HALFHILL R (HALF-I)

Inventor: HALFHILL R

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6042382	A	20000328	US 1996754492	A	19961120	200029	B

Priority Applications (no., kind, date): US 1996754492 A 19961120

Alerting Abstract US A

NOVELTY - Each **pod** (12) installed on a **base** support (60) via a **flying platform** (50), has **seating space** for one person. The **pods** are **rotated** about a **central** axis (14) of **orbit** and at least one **pod** is subjected to a centripetal **force**. Pumping **units** pump selective quantity of fluid from a **central** storage to individual tanks or vice versa depending on weight change sensed in **pods** by a sensing **unit**.

DESCRIPTION - The **base** support is installed with a variable balancing **unit** to counterbalance **rotating** weight of the **pods**. The variable balancing **unit** consists of the **central** storage and the cans at specific place on the **base** support with respect to the **seats** of the **pod**. A control valve controls opening of valves through which fluids communicates between the **central** storage and the tanks. The control valve is performed in such a way that **center** of mass of **pods** coincide with the **central** axis. Another picture camera is installed to trace **motion picture** of **pods** carrying **passengers** and the **motion picture** is displayed to the **passengers**.

USE - For educational purpose and **amusement** park **rider**.

ADVANTAGE - Produces sensory stimulation due to combination of gravitational **force** and centripetal **force** applied on **pods** which **carry passengers**.

DESCRIPTION OF DRAWINGS - The figure shows perspective view of **pod** incorporated in the centripetal acceleration **movement device**.

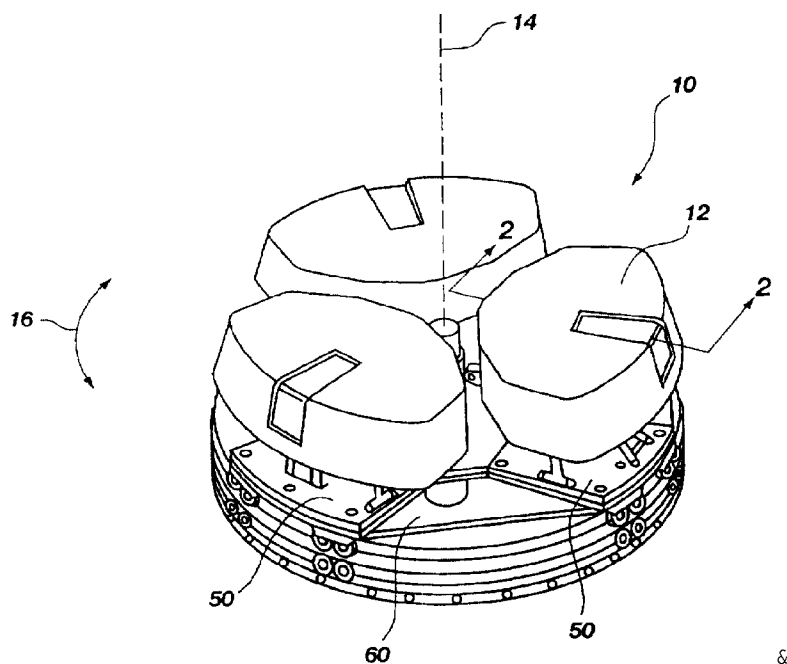
12 **Pods**

14 **Central axis**

50 **Platform**

60 **Base support**

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: CENTRIPETAL; ACCELERATE; APPARATUS; AMUSE; PARK; **RIDE**; **POD**; **ROTATING**; **FIX**; **FLYING**; **PLATFORM**; **CENTRAL**; **AXIS**; **ORBIT**; **EFFECT**; **CENTRIFUGE**; **FORCE**; **ONE**; **END**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0001/26	A	I		R	20060101
A63G-0031/16	A	I		R	20060101
A63G-0001/00	C	I		R	20060101
A63G-0031/00	C	I		R	20060101

US Classification, Issued: 43459, 43455, 47231, 47239, 47247, 47260

File Segment: EngPI; EPI;

DWPI Class: W02; W04; P36; P85

Manual Codes (EPI/S-X): W02-F01X; W04-X03G3

Centripetal acceleration apparatus for amusement park riders, has pods

rotatably fixed in flying platform, and rotated about a central axis of orbit, for effecting centrifugal force on at least one end Alerting Abstract ...in such a way that **center** of mass of **pods** coincide with the **central** axis. Another picture camera is installed to trace **motion** picture of **pods** carrying **passengers** and the **motion** picture is displayed to the **passengers**...

...ADVANTAGE - Produces sensory stimulation due to combination of gravitational **force** and centripetal **force** applied on **pods** which **carry** **passengers**. **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date **A63G-0001/26**... **A63G-0031/16** **A63G-0001/00**... **A63G-0031/00** Original Publication Data by AuthorityArgentina**Publication No.** ...**Original Abstracts:**display confined to orbital **movement** with the **carrying** **pods** in a **manner** sufficient to enable the **motion** picture display to be viewed by a seeing **passenger** being **carried** by the **carrying** **pods**. The apparatus may also include variable balancing means for counter-balancing the **carrying** **pods** about the first axis responsive to changes in position of the ... **Claims:****base** support having a **rotatable** portion **rotatably** disposed about a first axis;a **carrying** means having a **center** of mass and being positioned on the **rotatable** portion of the **base** support remotely with respect to the first axis for **carrying** at least one **passenger**, the **carrying** means comprising a plurality of **spaced-apart** **seating** assemblies for **carrying** a plurality of **passengers**, each **seating** assembly having its own individual **center** of **mass** positioned remotely with respect to the first axis;a **rotating** means for **rotating** the **rotatable** portion of the **base** support about the first axis and...

23/12,K/28 (Item 28 from file: 350) [Links](#)

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0009286817

WPI Acc no: 1999-216616/199919

XRPX Acc No: N1999-159598

Children's merry-go-round with fixed base frame

Patent Assignee: STREMPER H (STRE-I)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 29901633	U1	19990401	DE 29901633	U	19990202	199919	B

Priority Applications (no., kind, date): DE 29901633 U 19990202

Alerting Abstract DE U1

NOVELTY - Children's merry-go-round has two frames, **pivot** bearing, ball and socket joints and piston cylinder **unit**.

DESCRIPTION - The **passenger** **seats** are mounted on a **turning** **platform** (6) rotary mounted on a **pivot** bearing (7) which is mounted so as to **swivel** on at least two non-parallel axes which are at right angles to the **pivot** axle when not in **motion**. The **pivot** bearing is mounted on gimbals on the **base** frame (1). A first frame (2) is **swivel** mounted on a first axis on the **base** frame. A **second** frame (3) is **swivel** mounted on a **second** axis on the **second** frame. The frames are suspended on a pair of ball-and-socket joints (11) on one end of a hydraulic piston-cylinder **unit**.

USE - Children's merry-go-round with **base** frame, **turning** **platform** and **pivot** bearing.

ADVANTAGE - The compact suspension enables the **turning** **platform** to tilt in

all directions in relation to the **base** frame.

DESCRIPTION OF DRAWINGS - The drawing shows a view of the **turning platform, plate** and gimbal suspension.

1 **Base** frame

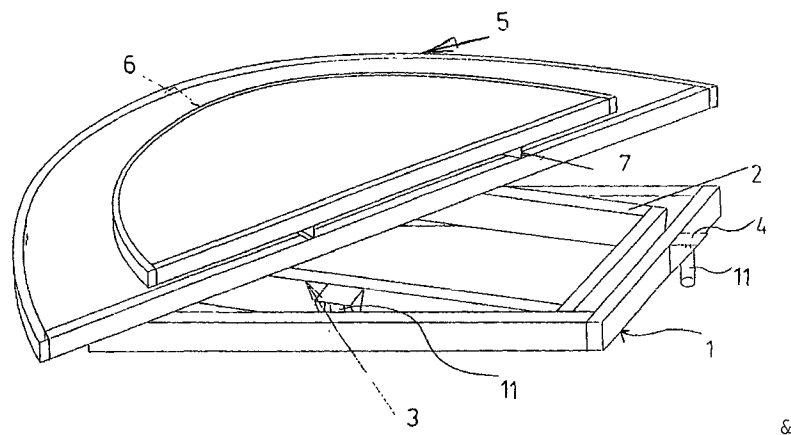
2,3 First and **second** frames

(6 **Turning platform**

7 **Pivot** bearing

11 Ball and socket joint

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: CHILD; ROUND; FIX; **BASE**; FRAME

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0001/38	A	I		R	20060101
A63G-0001/00	C	I		R	20060101

File Segment: EngPI; ;

DWPI Class: P36

Children's merry-go-round with fixed base frame Alerting Abstract DESCRIPTION

- The **passenger seats** are mounted on a **turning platform** (6) rotary mounted on a **pivot bearing** (7) which is mounted so as to **swivel** on at least two non-parallel axes which are at right angles to the **pivot** axle... ..USE -

Children's merry-go-round with **base** frame, **turning platform** and **pivot bearing**... ..ADVANTAGE - The compact suspension enables the **turning platform**

to tilt in all directions in relation to the **base** frame... ..DESCRIPTION OF DRAWINGS - The drawing shows a view of the **turning platform, plate** and gimbal suspension... ..6 **Turning platform** Class Codes International Patent

Classification IPC Class Level Scope Position Status Version Date **A63G-0001/38... A63G-0001/00...**

23/12,K/29 (Item 29 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0008709861

WPI Acc no: 1998-250297/199822

XRPX Acc No: N1998-197659

Spring mounted riding toy for children - comprises struts rotatably attached to base and riding platform, with springs between them and safety shields covering portion between struts

Patent Assignee: HALL T A (HALL-I)

Inventor: HALL T A

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5738589	A	19980414	US 1996680185	A	19960715	199822	B

Priority Applications (no., kind, date): US 1996680185 A 19960715

Alerting Abstract US A

A **riding** toy (10) comprises: (a) a **base** (12); (b) a pair of longitudinally parallel beam shaped braces (14), attached to the upper surface of the **base**, extending vertically up from the **base** in a transverse direction; (c) at least two pairs of parallel struts (16), extending upward and being **rotatably** attached to the braces in the longitudinal direction; (d) a **platform** (18) with sides **rotatably** attached at the front and rear ends to the struts; (e) a **riding** structure (26) on the top of the **platform**; (f) at least one **spring** **rotatably** attached, and nearly horizontal, between the struts; and (g) a pair of planar, nearly vertical safety shields (36), each being **rotatably** attached at its upper end, to the sides of the **platform**, and being **rotatably** attached at its lower end to one of the braces, and being of sufficient size to cover the region between the struts in the forward and rearward positions.

USE - Used as a **spring** mounted **riding** toy for children.

ADVANTAGE - There is a limit to the extent of **riding motion**, the **base** is broad, and the **riding platform** remains parallel to the **base**, reducing the likelihood of a child falling off the toy. The shields prevent children from catching their fingers in the **springs**. The toy is lightweight.

Title Terms /Index Terms/Additional Words: **SPRING**; **MOUNT**; **RIDE**; **TOY**; **CHILD**; **COMPRISE**; **STRUT**; **ROTATING**; **ATTACH**; **BASE**; **PLATFORM**; **SAFETY**; **SHIELD**; **COVER**; **PORTION**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0013/08	A	I		R	20060101
A63G-0013/00	C	I		R	20060101

ECLA: A63G-013/08

US Classification, Current Main: 472-103000; **Secondary:** 446-029000, 446-487000, 482-096000, 482-130000

US Classification, Issued: 472103, 44629, 446487, 482130, 48296

File Segment: EngPI; ;

DWPI Class: P36

...comprises struts rotatably attached to base and riding platform, with springs between them and safety shields covering portion between struts

Alerting Abstract ...direction; (c) at least two pairs of parallel struts (16), extending upward and being **rotatably** attached to the braces in the longitudinal direction; (d) a **platform** (18) with sides **rotatably** attached at the front and rear ends to the struts; (e) a **riding** structure (26) on the top of the **platform**; (f) at least one spring **rotatably** attached, and nearly horizontal, between the struts; and (g) a pair of planar, nearly vertical safety shields (36), each being **rotatably** attached at its upper end, to the sides of the **platform**, and being **rotatably** attached at its lower end to one of the braces, and being of sufficient size to cover the region between the struts in the forward... **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date **A63G-0013/08... A63G-0013/00...** Original Publication Data by AuthorityArgentina**Publication No.** ...**Original Abstracts:**or base, respectively, or between mutually facing sides of the struts on either or both sides of the **riding** toy. The structure thus provides a "**ride**" in which the **seat** upon which a **child** is placed remains horizontal at all times, no contact can be made between the child and the **springs** that provide the restoring force to the... ...**Claims:**being attached at proximal ends thereof to one each of said pair of braces; a **platform** having a top surface and downwardly-extending, longitudinally extending and mutually parallel sides **rotatably** attached near forward and rearward ends thereof to distal ends of said at least two pairs of struts, one each of said mutually parallel sides... ... a **riding** structure having a longitudinal extension and a transverse extension and being **fixedly** mounted in a longitudinal disposition along said top surface of said **platform**; at least one spring **rotatably** attached in a nearly horizontal disposition between said corresponding mutually facing sides of at least one member of each of said at least two pairs... ... nearly vertical extension, each of said safety shields being **rotatably** attached at an upper end thereof to respective ones of said downwardly-extending sides of **said platform**, and being **rotatably** attached at lower ends thereof to a corresponding one of said braces, in each case at a longitudinal disposition between said forward and rearward positions, said nearly vertical extension and said extension transverse thereto being of sufficient dimension to cover over...

23/12,K/30 (Item 30 from file: 350) [Links](#)

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0008703403

WPI Acc no: 1998-243738/199822

XRPX Acc No: N1998-348950

Amusement ride with multiple cars - uses boom-like supports fixed with shaft to fix column which is extended upwards from platform

Patent Assignee: SORIANI & MOSER (SORI-N); SORIANI & MOSER MFG **AMUSEMENT RIDES** SRL (SORI-N)

Inventor: MOSER A; SORIANI C

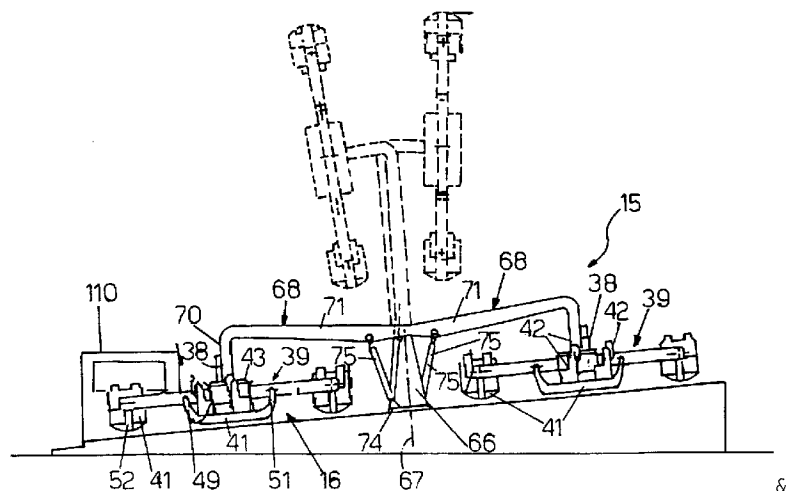
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
IT 1274914	B	19970725	IT 1994B0420	A	19940927	199822	B
US 5791998	A	19980811	US 1995533959	A	19950926	199839	ETAB

Priority Applications (no., kind, date): IT 1994B0420 A 19940927

Alerting Abstract US A

The **ride** comprises a **platform** (16) on whose centre, a column (66) is extended upwards. The column is fitted in articulated **manner** with two L-shaped boom-like roundabout supports (68) each fitted with a shaft (69). The shaft is fitted **rotatably** with a support (39) for a set of **cars** (41) accommodating multiple **passenger seats** (1,2) arranged side by side in atleast one row perpendicular to pins (56). The support includes multiple arms (49,51) equally **spaced** angularly and attached removably to a **central hub** (43). Each arm has a pair of appendices **pivoting** about the pins. The **hub** is **rotated** in relation to the shaft by a geared motor (38). A hydraulic jack (75) is interposed between the supporting member and the column for **rotating** the member about the articulated joint in radial plane.

ADVANTAGE - Offers flexible **movement** of **cars** from one site to another site. Enables trouble free transfer of **ride** as column fitted to **platform** forms bed of tired **vehicle**.

Main Drawing Sheet (s) or Clipped Structure(s)

Title Terms /Index Terms/Additional Words: AMUSE; **RIDE**; MULTIPLE; **CAR**; BOOM; SUPPORT; FIX; SHAFT; COLUMN; EXTEND; UP; **PLATFORM**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0027/04	A	I		R	20060101
A63G-0027/00	C	I		R	20060101

ECLA: A63G-027/04

US Classification, Issued: 47231, 47246

File Segment: EngPI; ;

DWPI Class: P36

Amusement ride with multiple cars - Original Titles:Amusement ride featuring

a number of **cars**. **Alerting Abstract** ...shaped boom-like roundabout supports (68) each fitted with a shaft (69). The shaft is fitted **rotatably** with a support (39) for a set of **cars** (41) accommodating multiple **passenger seats** (1,2) arranged side by side in at least one row perpendicular to pins (56). The support includes multiple arms (49,51) equally **spaced** angularly and attached removably to a **central hub** (43... **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date **A63G-0027/04... A63G-0027/00...** Original Publication Data by Authority Argentina **Publication No. Original Abstracts:** An **amusement ride** presenting a **column fitted** to a beam which **pivots** about a pin **on the platform** and is connected **to** the column by at least one jack. The column is fitted in articulated **manner** with four blocks, each presenting a horizontal pin about which **pivots...** **Claims:** An **amusement ride featuring a** plurality of **cars**, each **adapted** to accommodate at least one **passenger**, comprising: at least one roundabout supporting member connected at a first end by a first articulated joint to a column **rotatable** about a substantially vertical... ... said supporting member and adapted to support at least two **cars**; wherein said support further comprises: a plurality of radial arms removably attached to a **central hub**; and wherein said arms are substantially equally **spaced angularly about** said **second** axis and thereby adapted to support a corresponding number of said **cars**; wherein each said arm further comprises: a pair of appendixes each...

23/12,K/31 (Item 31 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0008671197

WPI Acc no: 1998-209938/199819

XRPX Acc No: N1998-387636

Amusement ride - has passenger car whose supporting structure is fixed to axial end of arms

Patent Assignee: SORIANI & MOSER (SORI-N); SORIANI & MOSER MFR **AMUSEMENT RIDES** SRL (SORI-N)

Inventor: MOSER A; SORIANI C

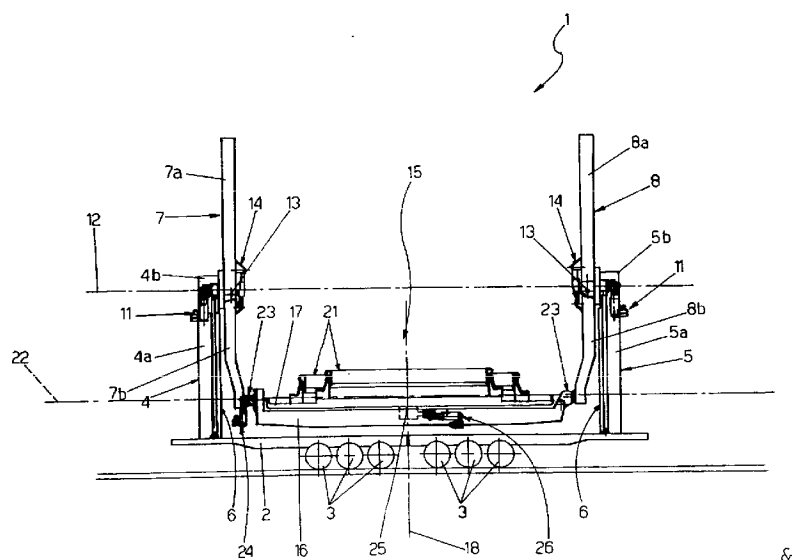
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
IT 1274071	B	19970715	IT 1994B0459	A	19941019	199819	B
US 5803816	A	19980908	US 1995544685	A	19951018	199843	ETAB

Priority Applications (no., kind, date): IT 1994B0459 A 19941019

Alerting Abstract US A

The **ride** (1) has a **platform** (2) that is **fixed** on the ground through a number of wheels (3). A pair of vertical ports (4,5) are extended upwards from the **platform**. Each port has an arm (7,8) at the upper end. The arms are **rotated** by a drive **unit** (11) along the horizontal axis (12). A supporting structure (16) of a **passenger car** (15) is **fixed** to the axial end of the arms. A circular **plate** (17) is **fixed** to the supporting structure, **rotatably**. Multiple **seats** are **fixed** in the **plate**.
ADVANTAGE - Offers various types of **movements** to **car**.

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: AMUSE; **RIDE**; **PASSENGER**; **CAR**; **SUPPORT**; **STRUCTURE**; **FIX**; **AXIS**; **END**; **ARM**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0027/02	A	I		R	20060101
A63G-0009/08	A	I		R	20060101
A63G-0027/00	C	I		R	20060101
A63G-0009/00	C	I		R	20060101

ECLA: A63G-009/08, A63G-027/02

US Classification, Current Main: 472-046000; **Secondary:** 472-044000

US Classification, Issued: 47246, 47244

File Segment: EngPI; ;

DWPI Class: P36

Amusement ride -has passenger car whose supporting structure is fixed to axial end of arms Original Titles:Amusement ride. Alerting Abstract ...The ride (1) has a platform (2) that is fixed on the ground through a number of wheels (3). A pair of vertical ports (4,5) are extended upwards from the platform. Each port has... ..A supporting structure (16) of a passenger car (15) is fixed to the axial end of the arms. A circular plate (17) is fixed to the supporting structure, rotatably. Multiple seats are fixed in the plate. **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date A63G-0027/02... ..A63G-0009/08 A63G-0027/00... ..A63G-0009/00 Original Publication Data by AuthorityArgentinaPublication No. Original Abstracts: An amusement ride presenting a platform, two parallel vertical posts extending upwards from the platform, and two arms fitted respectively to the posts and rotated about a horizontal axis by a first drive means. The ride is characterized in that it presents a passenger car in turn presenting a circular supporting structure fitted to an axial end of the

two arms, a circular **plate** fitted to the **structure** and **rotated** freely about its **own central** axis by a **second** drive means and a number of **seats** fitted to the **plate**. **Claims:** An **amusement ride comprising: a platform;** two parallel vertical posts extending upwards from the **platform** two arms fitted to respective **said** posts and **rotatable** about a horizontal axis by a first drive; and a **passenger car** presenting a circular supporting structure fitted to an **axial end** of said arms, a circular **plate** fitted to said structure and **rotatable** freely about said **plate's own central** axis by a **second** drive, and a number of **seats** fitted to said **plate**.

23/12,K/32 (Item 32 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0008584936

WPI Acc no: 1998-119831/199811

XRPX Acc No: N1998-095386

Motion-base ride-simulator - has six-degree movable motion base carrying passenger cabin, ride controller positioning cabin next to stationary platform for loading or unloading passengers

Patent Assignee: BARR C K (BARR-I)

Inventor: BARR C K

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5711670	A	19980127	US 1995556490	A	19951113	199811	B

Priority Applications (no., kind, date): US 1995556490 A 19951113

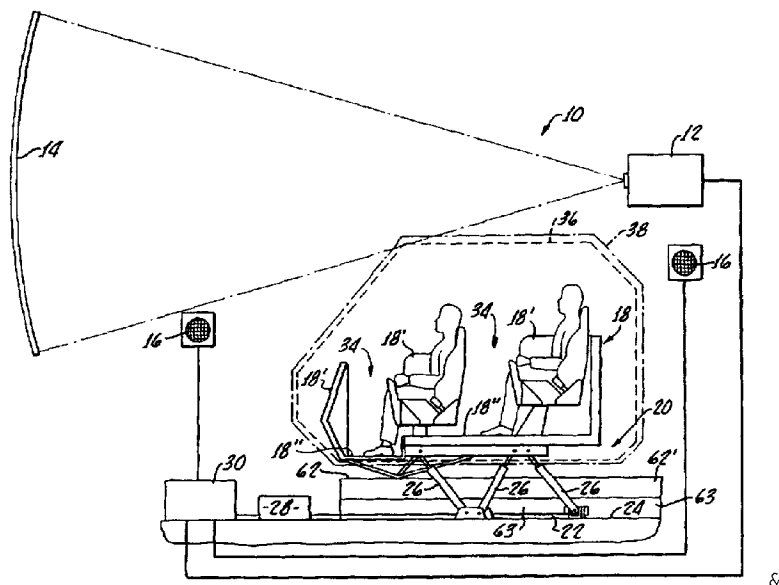
Alerting Abstract US A

The **ride-simulator** includes a **passenger** cabin (18) with a portal at one side for allowing **passengers** to enter or leave. A projection screen (14) provides an audio-visual presentation to the **passengers** in conjunction with a pair of speakers (16). The **passenger** cabin is **carried** by a six-degree movable **motion-base** (20) which provides G-forces to the **passengers** in concert with the audio-visual presentation.

The **motion-base** is supported by a number of mechanical actuators (26), each having an associated **motion** stop. Together, the **motion** stops define a maximum **movement** envelope for the cabin. A **ride** controller positions the cabin in a **passenger** loading/unloading position next to a **stationary platform** at a point on the maximum **movement** envelope by driving selected actuators against the corresponding **motions** stops.

ADVANTAGE - Allows loading and unloading of **passengers** without requiring movable **platforms** or jacks to elevate **passenger** cabin from loading area into **motion-base** theatre.

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: MOTION; BASE; RIDE; SIMULATE; SIX; DEGREE; MOVE; CARRY; PASSENGER; CABIN; CONTROL; POSITION; STATIONARY; PLATFORM; LOAD; UNLOAD

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
G09B-009/08			Main		"Version 7"
G09B-019/16			Secondary		"Version 7"

ECLA: A63G-031/16, G09B-009/02

US Classification, Current Main: 434-055000; **Secondary:** 434-058000, 434-30700R, 472-060000

US Classification, Issued: 43455, 43458, 434307, 47260

File Segment: EngPI; EPI;

DWPI Class: W04; P85

Manual Codes (EPI/S-X): W04-X03G3

...has six-degree movable motion base carrying passenger cabin, ride controller positioning cabin next to stationary platform for loading or unloading passengers Alerting Abstract ...motion stops define a maximum movement envelope for the cabin. A ride controller positions the cabin in a passenger loading/unloading position next to a stationary platform at a point on the maximum movement envelope by driving selected actuators against the corresponding motions stops... Original Publication Data by AuthorityArgentinaPublication No. ...Original Abstracts:includes a passenger cabin which is carried by a plurality of actuators within a limited operating envelope. During operation of the ride the movements of the passenger cabin simulate G-forces associated with an audio-visual presentation to the passengers within the cabin. The combination of sight, sound, and feeling (i.e., G-forces) provides the passengers of the ride with a sense of riding on a vehicle, such as a racing car or rocket ship. In order to facilitate one

or both of **passenger** ingress and egress of the cabin, the **motion base** is so **associated** with a **stationary passenger platform** that **the passenger cabin** may be **moved** to a **passenger** access position immediately adjacent to but not touching an adjacent edge of this **platform**. In this **passenger** access position of the cabin... .. has these same features, but also includes a singular movable **passenger platform** on a side of the **passenger** cabin other than the location of the **stationary passenger platform** and **allowing through-flow** of **passengers** during a **passenger** loading and unloading phase of **ride** operation. Another alternative embodiment of the invention allows **passenger** through flow. ...**Claims:**said mechanical **motion** stops to position said cabin in a **passenger** loading/unloading position at one side of said maximum-mechanical-excursion envelope; and a **stationary passenger platform** disposed at said one side of said cabin and **outside** of said operating envelope and immediately adjacent to but **outside** of said maximum-mechanical-excursion envelope, said **stationary passenger platform** being **disposed** immediately adjacent said **passenger** cabin in said **loading/unloading position** of the latter to allow **passenger** ingress and egress by **passengers** stepping directly between said **passenger** cabin and said **stationary passenger platform**.

23/12,K/34 (Item 34 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0007846579

WPI Acc no: 1996-476177/199647

XRPX Acc No: N1996-401674

Method for passenger loading and unloading - includes changing vertical displacement of inner portion of vehicle relative to outer portion of vehicle by causing vehicle to pass over cam structure

Patent Assignee: DISNEY CO WALT (DISN-N)

Inventor: FRITSCHKE J L; KELLEY T V; MIRABELLA A; WALLACE J K

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5564984	A	19961015	US 1994315115	A	19940929	199647	B

Priority Applications (no., kind, date): US 1994315115 A 19940929

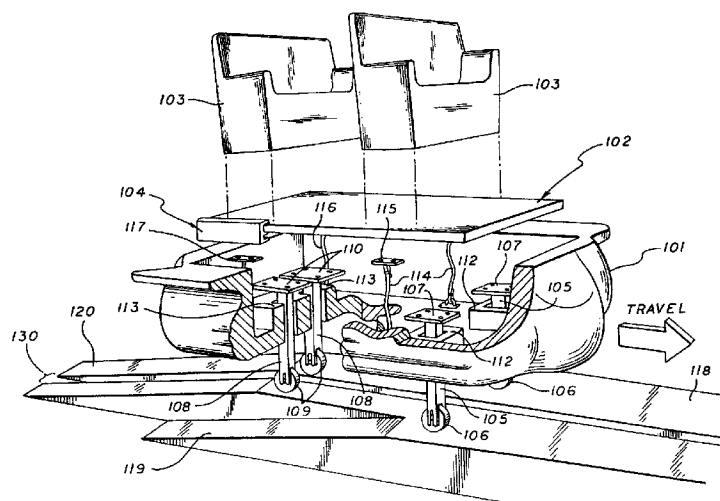
Alerting Abstract US A

The method comprises the step of changing a vertical displacement of an inner portion of a **vehicle** relative to an **outer** portion of the **vehicle** by causing the **vehicle** to pass over a cam structure.

The inner portion is raised relative to the **outer** portion. The inner portion is supported above the cam structure by a leg and wheel assembly. The leg and wheel assembly causes the inner portion of the **vehicle** to pass over the cam structure.

ADVANTAGE - Provides safe and **stable** transportation of **passengers**, yet allows **passengers**, including wheelchair-bound **passengers**, to quickly enter and exit the **vehicle** without climbing down into the **vehicle** and without stepping on the **seats**.

Main Drawing Sheet(s) or Clipped Structure(s)



&

Title Terms /Index Terms/Additional Words: METHOD; **PASSENGER**; LOAD; UNLOAD; CHANGE; VERTICAL; DISPLACEMENT; INNER; PORTION; **VEHICLE**; RELATIVE; **OUTER**; CAUSE; PASS; CAM; STRUCTURE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61G-0005/10	A	N		R	20060101
A63G-0003/00	A	I		R	20060101
A61G-0005/00	C	N		R	20060101
A63G-0003/00	C	I		R	20060101

ECLA: A63G-003/00

ICO: K61G-005:10

US Classification, Issued: 47243, 47226, 414921

File Segment: EngPI; ;

DWPI Class: P36

Original Titles: Double hull amusement ride vehicle. **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date
...A63G-0003/00 ...A63G-0003/00 Original Publication Data by
 Authority Argentina Publication No. **Original Abstracts:** A **vehicle** that provides safe and stable transportation of **passengers**, yet allows **passengers**, including wheelchair-bound **passengers**, to quickly enter and exit the **vehicle** without climbing up or down and without stepping on the **seats** has been provided. The preferred embodiment of the **vehicle** of the present invention, which is towed by an underwater cable system, has a double hull construction with a **fixed outer** hull and a **moveable** inner hull or **seating platform**, which may be raised or lowered. In the **ride** dispatch area, the inner hull is raised so that the floor of the inner hull is even with that of the **vehicle** gunwales and the **dispatch** floor level. During the **ride**, the hull is lowered so that the floor of the inner hull is below the level of the **vehicle** gunwales, and thus the **vehicle** forms a secure and stable **seating** compartment configuration for the duration of the **ride**. The **vehicle** is further equipped to secure

wheelchair-bound guests to the inner hull quickly and easily.

23/12,K/36 (Item 36 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0007270751

WPI Acc no: 1995-328125/199542

XRPX Acc No: N1995-246968

Mass entertainment system imitating movement - has lighting units placed at front of, on top, and at sides of cabin, and uses signal unit to control overloading imitation device with force and passenger fixing sensors

Patent Assignee: GOLOVITSYN I S (GOLO-I); ROMANOV A A (ROMA-I); ZADEREI A G (ZADE-I)

Inventor: GOLOVITSYN I S

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1995024249	A1	19950914	WO 1995RU40	A	19950306	199542	B

Priority Applications (no., kind, date): RU 19947814 A 19940310

National Designated States: FI JP US

Regional Designated States: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Alerting Abstract WO A1

The system has an air-conditioning **unit** of a **passenger** cabin (7) connected and an electronic computer (11) forms 'initial position' commands, while a **hydrostation** (5) sets the stems of hydro-cylinders (3) in a **central** position. Projectors (16) with four shuttered screens are connected and armrests (10) and headrests (9) of **seats** (8) are lowered and **moved** aside, respectively, while all shutters are closed, doors (26) are closed, steps (17) are raised and no information is displayed on indication and lighting systems (24). On passage of a 'land' command, the computer passes signals to a **command unit** (6), to lower a **platform** (2) with the cabin to its lower position, when a **unit** (32) carries out lowering of the steps and opening of the doors and a **unit** (25) connects full lighting. On obtaining of a 'take-off' command, a **unit** (14) raises the armrests, the **unit** (32) raises the steps and closes the doors and the projectors begin running a film. The shutters are opened, the **platform** is **moved** spatially to imitate dynamic action and indication and sound effects are formed, to produce the illusion of **movement**. At the end of the film, the **platform** is lowered to its lowest position and the **movement** control **unit** (6) passes a signal to a control **unit** (34) of forming of a **moving** image, indicating end of take-off.

USE/ADVANTAGE - Imitation of **movement** in vessels with high deg. of plausibility in games systems and during training of aircraft and **spacecraft** crews. Increased deg. of interest.

Title Terms /Index Terms/Additional Words: MASS; **ENTERTAINMENT**; SYSTEM; IMITATE; **MOVEMENT**; LIGHT; **UNIT**; PLACE; FRONT; TOP; SIDE; CABIN; SIGNAL; CONTROL; OVERLOAD; DEVICE; **FORCE**; **PASSENGER**; FIX; SENSE

Class Codes

International Patent Classification

IPC	Class	Scope	Position	Status	Version Date
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	Level				
G09B-009/14			Main		"Version 7"
A63F-009/22			Secondary		"Version 7"
A63G-0031/02	A	I	L	R	20060101
A63G-0031/16	A	I		R	20060101
G09B-0009/08	A	I		R	20060101
G09B-0009/14	A	I		R	20060101
G09B-0009/16	A	I		R	20060101
G09B-0009/52	A	I	L	R	20060101
A63G-0031/00	C	I		R	20060101
G09B-0009/02	C	I		R	20060101

ECLA: A63G-031/16, G09B-009/08, G09B-009/14, G09B-009/16B

File Segment: EngPI; EPI;
 DWPI Class: W04; W06; P36; P85
 Manual Codes (EPI/S-X): W04-X03G; W06-B04

Alerting Abstract ...The system has an air-conditioning **unit** of a **passenger** cabin (7) connected and an electronic computer (11) forms 'initial position' commands, while a **hydrostation** (5) sets the stems of hydro-cylinders (3) in a... ...raises the armrests, the **unit** (32) raises the steps and closes the doors and the projectors begin running a film. The shutters are opened, the **platform** is **moved** spatially to imitate dynamic action and indication and sound effects are formed, to produce the illusion of **movement**. At the end of the film, the... **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date **A63F-009/22** **A63G-0031/02**...
 ...**A63G-0031/16** **A63G-0031/00**... Original Publication Data by
 AuthorityArgentinaPublication No. ...**Original Abstracts:**which controls and monitors the **seats** (14), the sound reproduction system control **unit** (23), and the lighting and presentation system control **unit** (25). In order to admit and release **passengers**, the cabin has doors (26) with opening mechanisms (27), sensors to detect their positions (28) and airlock chambers (29) with steps and doors, associated control... ... the **seats** (14), the sound reproduction system control **unit** (23), and the lighting and presentation system control **unit** (25). In order to admit and release **passengers**, the cabin has doors (26) with opening mechanisms (27), sensors to detect their positions (28) and airlock chambers (29) with steps and doors, associated control mechanisms...
Claims: A **motion-simulating entertainment** facility comprising a dynamic stand for effecting **motions** made up of a **stationary base**, a **movable platform**, hydraulic **cylinders** fitted with position transducers and articulated to the **base** and the movable **platform**, a hydraulic **station** communicating hydraulically with each cylinder, a **platform** position control... ... of the hydraulic **station**, the outputs of the hydraulic cylinder position transducers are connected with the corresponding inputs of the **platform** position control and monitoring **unit**, a **passenger** capsule with rows of chairs installed on the movable **platform**, a **moving-picture generator** and a control signal shaper whose control input is connected to the output of the **moving-picture** generator on a synchronizing signal CHARACTERIZED in that... ... are connected via the control and monitoring **unit** of the lock and door mechanisms with the corresponding outputs of the control signal shaper; the movable **platform** and **stationary base** are connected by six hydraulic cylinders, the latter being connected to the movable **platform** by articulated joints with three degrees of freedom, and to the **stationary base**, by joints with two

degrees of freedom; the **entertainment** facility also incorporates hydraulic accumulators communicating hydraulically with the hydraulic **station** and all hydraulic cylinders.

23/12,K/37 (Item 37 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0007220616

WPI Acc no: 1995-269302/199535

XPX Acc No: N1995-207058

Skirt type merry-go-round - has bell type base frame tilting on universal joint and with bottom drive mechanism for ring of rotary body

Patent Assignee: SCHWARZKOPF A (SCHW-I)

Inventor: SCHWARZKOPF A

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1995019826	A1	19950727	WO 1994EP4255	A	19941221	199535	B

Priority Applications (no., kind, date): DE 1994939 U 19940120

National Designated States: CA CZ HU JP KP US

Regional Designated States: AT BE CH DE DK ES FR GB GR IE

IT LU MC NL PT SE LI

Alerting Abstract WO A1

The rigid conical rotary body (3) open to the underside is mounted via a universal joint (4) on the top end of a height-adjustable **central** column (2), and is **turned** and tilted by a drive mechanism. The **passenger seats** are at its bottom edge. The **base** frame (11) tilts but does not **turn** on the universal joint, and has a coupling with ball-bearing (18) at the bottom edge accommodating and driving a **ring** (19) on the rotary body.

A **fixed** upright (5) guiding the column can have a **fixed** **centring** body (10) tapering towards the top. In the bottom position of the column, an annular supporting member (14) at the frame bottom edge bears against the body (10), giving a **centring** effect.

USE/ADVANTAGE - Has simple construction and relieves universal joint of **torque**.

Title Terms /Index Terms/Additional Words: SKIRT; TYPE; MERRY-GO-ROUND; BELL; **BASE**; FRAME; TILT; UNIVERSAL; JOINT; BOTTOM; DRIVE; MECHANISM; **RING**; ROTATING; BODY

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0001/28	A	I		R	20060101
A63G-0001/38	A	I		R	20060101
A63G-0001/00	C	I		R	20060101

ECLA: A63G-001/28, A63G-001/38

File Segment: EngPI; ;
DWPI Class: P36

Alerting Abstract ...a universal joint (4) on the top end of a height-adjustable **central** column (2), and is **turned** and tilted by a drive mechanism. The **passenger seats** are at its bottom edge. The **base** frame (11) tilts but does not **turn** on the universal joint, and has a coupling with ball-bearing...
Class Codes International Patent Classification IPC Class Level Scope
Position Status Version Date **A63G-0001/28**... **A63G-0001/38** **A63G-0001/00**...
Original Publication Data by AuthorityArgentina**Publication No.** ...**Original Abstracts:**column. The **rotation** body is driven through the **cardan** joint, that is thus exposed to high stresses. In order to avoid this problem, a rotary **base frame** (11) does **not rotate**, only **swivels**, around the **cardan** joint (4). A ball bearing slewing rim (18) to receive and drive a **rotating ring** (19) of the **rotation body** (3) is arranged at the lower edge of the rotary **base** frame (19). In this way, the **torque** for driving the **rotation** body (3) is... ...column. The **rotation** body is driven through the **cardan** joint, that is thus exposed to high stresses. In order to avoid this problem, a rotary **base** frame (11) does **not rotate**, only **swivels**, around the **cardan** joint (4). A ball bearing slewing rim (18) to receive and drive a **rotating ring** (19) of the **rotation body** (3) is arranged at the lower edge of the rotary **base** frame (19). In this way, the **torque** for driving the **rotation** body (3) is not transmitted through the... ...**Claims:**a universal joint (4) on the top end of a height-adjustable **central** column (2), and is **turned** and tilted by a drive mechanism. The **passenger seats** are at its bottom edge. The **base** frame (11) tilts but does not **turn** on the universal joint, and has a coupling with ball-bearing...

23/12,K/39 (Item 39 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)
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0006124725

WPI Acc no: 1992-366032/199244

XRPX Acc No: N1992-278999

Amusement ride in which passengers are aware only of own vehicle - uses stationary domed projection screen and stationary film projector with vehicles mounted on individual movable bases

Patent Assignee: UNIVERSAL CITY STUDIOS INC (UVC-I-N)

Inventor: ALEXANDER P N; BARR C K

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1992017256	A1	19921015	WO 1992US1882	A	19920310	199244	B

Priority Applications (no., kind, date): US 1991675662 A 19910327; US 1992892402 A 19920528

National Designated States: CA JP KR

Regional Designated States: AT BE CH DE DK ES FR GB GR IT LU MC NL SE

Alerting Abstract WO A1

The **amusement ride** has a **stationary** domed screen (24) and a **stationary** projector. A number of **motion bases** (62) each support a viewer **platform** (55) or **vehicle**. An elevator (52) is provided for lifting the **vehicle** out of a

staging room (44) to a viewer position (46).

The **motion bases** are arranged w.r.t. each other such that a **passenger** in any **vehicle** can view the entire screen but not any other **vehicle**. Actuators beneath each **vehicle** move the **vehicle** in three dimensions according to the projected **motion picture**.

ADVANTAGE - Distraction of other **vehicles** is eliminated giving more realistic sense of **motion**.

Main Drawing Sheet(s) or Clipped Structure(s)

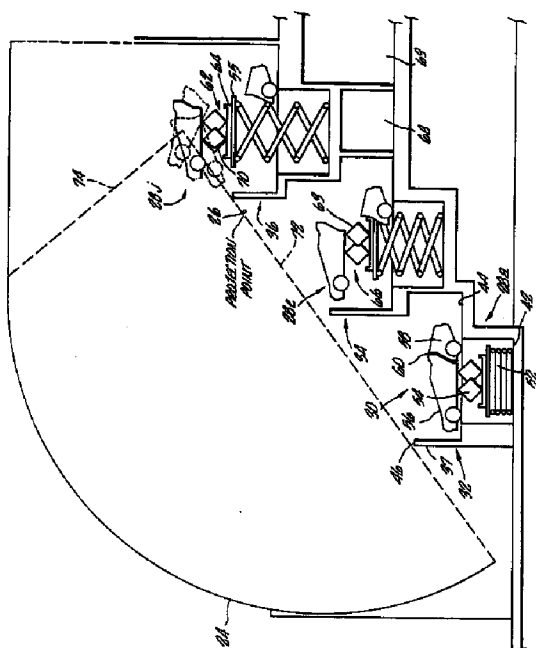


Fig. 3

&

Title Terms /Index Terms/Additional Words: AMUSE; **RIDE**; **PASSENGER**; AWARE; **VEHICLE**; **STATIONARY**; DOME; PROJECT; SCREEN; FILM; MOUNT; INDIVIDUAL; **MOVE**; **BASE**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0031/16	A	I		R	20060101
A63J-0023/02	A	I		R	20060101
A63J-0005/00	A	N		R	20060101
G09B-0009/30	A	I		R	20060101
A63G-0031/00	C	I		R	20060101
A63J-0023/00	C	I		R	20060101
A63J-0005/00	C	N		R	20060101
G09B-0009/02	C	I		R	20060101

ECLA: A63G-031/16, A63J-023/02, G09B-009/30

ICO: K63J-005:00A2A

US Classification, Current Main: 472-060000; Secondary: 472-061000

US Classification, Issued: 47260, 47261

File Segment: EngPI; EPI;

DWPI Class: W04; P36

Manual Codes (EPI/S-X): W04-X03G

Amusement ride in which passengers are aware only of own vehicle - Alerting

Abstract ...The **amusement ride** has a **stationary** domed screen (24) and a **stationary** projector. A number of **motion bases** (62) each support a viewer **platform** (55) or **vehicle**. An elevator (52) is provided for lifting the **vehicle** out of a **staging** room (44) to... ...The **motion bases** are arranged w.r.t. each other such that a **passenger** in any **vehicle** can view the entire screen but not any other **vehicle**. Actuators beneath each **vehicle** move the **vehicle** in three dimensions according the projected **motion** picture...

Equivalent Alerting Abstract ...The **ride** attraction has a **stationary** domed projection screen and a **stationary** projector, a number of **motion bases** with each supporting a viewer **platform** or **vehicle**. An elevator is provided for lifting the **vehicle** out of a **staging** room to a viewing position... ...The **motion bases** are mutually arranged w.r.t. each other such that a **passenger** in any **vehicle** can view substantially that a **passenger** in any **vehicle** can view substantially the entire screen but not any other **vehicle** within the theatre. Actuators beneath each **vehicle** move the **vehicle** in three dimensions in...

Technology Focus Class Codes International Patent Classification IPC Class Level Scope Position Status Version Date A63G-0031/16... ...A63J-0023/02... ...A63J-0005/00 A63G-0031/00... ...A63J-0023/00... ...A63J-0005/00 Original Publication Data by AuthorityArgentinaPublication No. Original Abstracts: A **ride** attraction has a **stationary** domed projection screen and a **stationary** projector, a plurality of **motion bases** with each **supporting** a viewer **platform** or **vehicle**. An elevator is provided for lifting the **vehicle** out of a **staging** room to a viewing position. The **motion bases** are mutually arranged with respect to each other such that a **passenger** in any **vehicle** can view substantially the entire screen but not any other **vehicle** within the theatre. Actuators beneath each **vehicle** move the **vehicle** in three dimensions in coordination with the projected... ... A **ride** attraction has a **stationary** domed projection screen (24) and a **stationary** projector, a plurality of **motion bases** (62) with each supporting a viewer **platform** (55) or **vehicle** (56). An elevator (52) is provided for lifting the **vehicle** out of a **staging** room (44) to a viewing position (46). The **motion bases** are mutually arranged with respect to each other such that a **passenger** in any **vehicle** can view substantially the entire **screen** but not any other **vehicle** within the theater. Actuators beneath each **vehicle** move the **vehicle** in three dimensions in coordination with the projected **motion** picture. **Claims:** A **ride** attraction comprising: a projection screen; a **stationary** projector for projecting **motion** pictures on said screen; a plurality of **motion bases**, each **motion base** **supporting** a viewer **platform**; means for elevating each **motion** viewer **vehicle** out of a **staging** room to a viewing position, said **motion bases** mutually arranged with respect to each other such that a viewer on any **motion base** can view the screen but not any other viewer **platform**; and means for moving each **viewer vehicle** on its respective **motion base** in coordination with the **motion** pictures.

23/12,K/40 (Item 40 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)
Derwent WPIX

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0004187063

WPI Acc no: 1987-299743/198743

System of stepping planes for car travel - comprises swivel platform movable against higher one inside common frame

Patent Assignee: THEIS R (THEI-I)

Inventor: THEIS R

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 3612168	A	19871022	DE 3612168	A	19860411	198743	B

Priority Applications (no., kind, date): DE 3612168 A 19860411

Alerting Abstract DE A

The equipment enables a **vehicle** to drive up onto a higher **intermediate** surface from a first one, and from this **intermediate** one onto a **still higher third** one. The **vehicle** has a drive axle at one end and a **second** axle at the other one, and brakes are operated by a separate circuit. For the transit from the first surface (3) to the **intermediate** one (4), a ramp (6) is provided, while the **intermediate** surface extends at least for the **vehicle** wheelbase.

The **intermediate** surface is on a **swivel platform** (7) inside a frame (8) below the swing axis (9). The **third** surface (5) has a horizontal **platform** (10) situated at a distance (X) from and above the **swivel platform**, when at its lowermost point, such that, when the **platform** swings forward, it abuts against the horizontal **platform** to form a smooth joint, over which the **vehicle** can drive.

USE/ADVANTAGE - For multi-storey **car** park, with level change caused entirely by the driven **vehicle**.

Title Terms /Index Terms/Additional Words: SYSTEM; STEP; PLANE; CAR; TRAVEL; COMPRISE; SWIVEL; PLATFORM; MOVE; HIGH; ONE; COMMON; FRAME

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63H-017/44; A63H-018/06; E04H-006/26			Secondary		"Version 7"

ECLA: A63H-018/02, E04H-006/38

File Segment: EngPI; ;

DWPI Class: P36; Q46

System of stepping planes for car travel -comprises swivel platform movable against higher one inside common frame Alerting Abstract ...The **intermediate** surface is on a **swivel platform** (7) inside a frame (8) below the swing axis (9). The **third** surface (5) has a horizontal **platform** (10) situated at a distance (X) from and above the **swivel platform**, when at its lowermost point, such that, when the **platform** swings forward, it abuts against the horizontal **platform** to form a smooth joint, over which... **Class Codes**

International Patent Classification IPC Class Level Scope Position Status
Version Date **A63H-017/44...** ...**A63H-018/06**

23/12,K/41 (Item 41 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0003464555

WPI Acc no: 1985-238277/198539

Circular boat for amusement ride - comprises annular float with inner circular insert contg. outward facing passenger seats

Patent Assignee: INTAMIN AG (INTA-N); SPIELDIENER R (SPIE-I)

Inventor: SAIKO A; SPIELDIENE R; SPIELDIENER R

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 155778	A	19850925	EP 1985301271	A	19850226	198539	B

Priority Applications (no., kind, date): US 1984585124 A 19840301; US 1986882505 A 19860707

Regional Designated States: AT BE CH DE FR GB IT LI LU NL SE

Alerting Abstract EP A

An annular float (12) contains an inner circular inset (14) with a **central core (32)**. **Passenger seats (44)** are arranged around the core, so that **passengers seated** face outwards, with their backs towards the core. The inset can be coupled to an underlying float **platform**.

The float **platform** is circular, with an **outer** periphery engaging the inner part of the annular float, which can be an air inflated tube. The annular float can instead be a rubber **outer** shell with an air bag.

USE - **Amusement** raft which is **stable** and allows all the occupants to see outwardly.

Title Terms /Index Terms/Additional Words: CIRCULAR; BOAT; AMUSE; **RIDE**; COMPRISE; ANNULAR; FLOAT; INNER; INSERT; CONTAIN; OUTWARD; FACE; **PASSENGER**; **SEAT**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
B63B-0001/04	A	I		R	20060101
B63B-0035/73	A	I	F	R	20060101
B63B-0001/00	C	I		R	20061008
B63B-0035/73	C	I	F	R	20060101

ECLA: B63B-001/04B

US Classification, Current Main: 114-346000; **Secondary:** 114-345000, 114-363000, D12-316000

US Classification, Issued: 114346, D12316, 114345, 114363

File Segment: EngPI; ;

DWPI Class: Q24

Circular boat for amusement ride - ... comprises annular float with inner circular insert contg. outward facing passenger seats **Alerting Abstract** ...An annular float (12) contains an inner circular inset (14) with a **central** core (32). **Passenger seats** (44) are arranged around the core, so that **passengers seated** face outwards, with their backs towards the core. The inset can be coupled to an... ...The float **platform** is circular, with an **outer** periphery engaging the inner part of the annular float, which can be an air inflated tube. The annular float can instead by a rubber **outer**... **Equivalent Alerting Abstract** ...The rigid inset is constructed with a concentric floor and a raised contoured **outer** rim which abuts the annular float. The inset is arranged to **seat passengers** around the **central** core, with the **passengers'** feet positioned on the floor or **outer** rim and the **passengers'** backs positioned against the raised structure of... ...USE - Circular flotation **vehicle** constructed to uniformly **seat passengers** for an **amusement ride**. (4pp)w **Technology Focus** Original Publication Data by AuthorityArgentina**Publication No. Original Abstracts:** Rapid river **ride** boat. A circular flotation **vehicle** (10), particularly for rafting as an **amusement ride**, the **vehicle** (10) having an annular tube 12 with a circular **platform** inset (14), wherein the **platform** inset (14) is constructed with a **central** contoured core (32)... ... A circular flotation **vehicle**, particularly for rafting as an **amusement ride**, the **vehicle** having an annular tube with a circular **platform** inset, wherein the **platform** inset is constructed with a **central** contoured core to **seat** a plurality of occupants around the core, whereby the core provides a common back rest and **seat**, allowing the occupants to... **Claims:**An annular float (12) contains an inner circular inset (14) with a **central** core (32). **Passenger seats** (44) are arranged around the core, so that **passengers seated** face outwards, with their backs towards the core. The inset can be coupled to an... ... The float **platform** is circular, with an **outer** periphery engaging the inner part of the annular float, which can be an air inflated tube. The annular float can instead by a rubber **outer**...

23/12,K/42 (Item 42 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

Derwent WPIX

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0003346587

WPI Acc no: 1985-111188/198519

Multiple seat multiple motion fairground device - has gondola suspended between counterbalanced rotating arms with drives for tilting axis of rotation

Patent Assignee: VAN DER VEEN G (VVEE-I)

Inventor: VAN DER VEEN G; VANDERVEEN G

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 3338048	A	19850502	DE 3338048	A	19831020	198519	B

Priority Applications (no., kind, date): DE 3338048 A 19831020

Regional Designated States: AT BE CH DE FR GB IT LI LU NL SE

Alerting Abstract DE A

The **entertainment** device with a multiple **seat** gondola which is both **rotated** and tited, has a **base platform** with two **fixed** arms forming the axis of

rotation between them. Each arm **carries** a **moving** arm with a connection at its **outer** end for the gondola so that the axis of **rotation** is horizontal. Each arm also has an extension **carrying** a balance weight and has a linkage connected to it so that it can be swung inwards so that the axis of **rotation** can be tilted from the horizontal. Each arm is connected to one end of the gondola by a universal joint.

USE - The device is mobile, with folding supports.

Title Terms /Index Terms/Additional Words: MULTIPLE; **SEAT**; **MOTION**; **FAIRGROUND**; **DEVICE**; **GONDOLA**; **SUSPENSION**; **COUNTERBALANCE**; **ROTATING**; **ARM**; **DRIVE**; **TILT**; **AXIS**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-001/08			Main		"Version 7"
A63G-027/02; A63G-007/00; A63G-009/08			Secondary		"Version 7"

ECLA: A63G-009/08, A63G-027/02

US Classification, Current Main: 472-045000; **Secondary:** 74-086000, 472-003000, 472-047000

US Classification, Issued: 47245, 7486, 4723, 47247

File Segment: EngPI; ;

DWPI Class: P36

...Original Titles:Amusement ride vehicle Alerting Abstract ...The **entertainment** device with a multiple **seat** gondola which is both **rotated** and **tited**, has a **base platform** with two **fixed** arms forming the axis of **rotation** between them. Each arm **carries** a **moving** arm with a connection at its **outer** end for the gondola so ... **Equivalent Alerting Abstract** ...The **amusement ride vehicle** has a **passenger** gondola, the ends of which **move** in vertical **orbits** disposed on planes parallel to each other. Two supports having a predetermined spacing between are provided... ...USE - An **amusement ride vehicle** for **passengers** at annual **fairs** which permits the **passengers** to experience surprising **motion** effects. (7pp)c **Technology Focus Class Codes**
International Patent Classification IPC Class Level Scope Position Status
Version Date **A63G-001/08** Main **A63G-027/02**... ...**A63G-007/00**... ...**A63G-009/08** Original Publication Data by AuthorityArgentinaPublication No.
Original Abstracts:An **amusement ride vehicle** having a **passenger gondola** the ends of which are adapted to **move** in substantially vertical **orbits** disposed on planes parallel to each other. Two supports having a predetermined spacing therebetween are provided... ...**Claims:**Apparatus formed as a **fairground-ride** machine for public **entertainment**, having posts (4,5) adapted to be erected at a predetermined distance from one another, between which a **passenger gondola** (17) is so suspended on cantilevers (10,10a), which...

23/12,K/44 (Item 44 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0001811219

WPI Acc no: 1979-F5984B/197926

Dismantlable track for auto-cycle sports - comprises several flat platforms attachable to adjacent platforms on either side to extend track in stages

Patent Assignee: REVERCHON M (REVE-I)

Inventor: REVERCHON C; REVERCHON M

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 2637	A	19790627	EP 1978400215	A	19781206	197926	B

Priority Applications (no., kind, date): FR 197737525 A 19771213; EP 1978400215 A 19781206

Regional Designated States: BE DE GB IT LU NL

Alerting Abstract EP A

The arrangement consists of a **central platform** (1) with a size large enough to cover the width of the **circulating** route. The **platform** is **carried** by a flanged beam (2) with a gusset **plate** connected with an articulated jack (13) and **pivoted** at the other end to a side grid (11).

The surface of the grid is equipped with rollers (16) which slide in edge grooves pref. of C-shaped section. In one position the **platform** is extended by a number of parallel planks (9) with rollers (16) on top, the rollers **carrying** a further **platform** (5).

The assembly may be built up quickly in a sports ground, **fairground** or park. The assembly is designed to provide a track for autoscotters and similar sports. It may be transposed as a packed assembly and positioned on site and may be subsequently repacked by **carrying** out a reverse procedure. The roller assembly enables the **platform** elements to be **moved** easily into position one at a time.

Title Terms /Index Terms/Additional Words: DISMANTLE; TRACK; AUTO; CYCLE; SPORTS; COMPRISE; FLAT; **PLATFORM**; ATTACH; ADJACENT; SIDE; EXTEND; **STAGE**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63G-0025/00	A	I		R	20060101
A63G-0025/00	C	I		R	20060101

ECLA: A63G-025/00

US Classification, Current Main: 414-680000; **Secondary:** 52-122100, 104-053000, 198-465100, 414-010000, 414-276000

US Classification, Issued: 414680, 52122.1, 10453, 198465.1, 41410, 414276

File Segment: EngPI; ;

DWPI Class: P36; Q35; Q46

...**Original Titles:**Apparatus for storing and emplacing floor **plates**, particularly for **amusement rides** **Alerting Abstract** ...The arrangement consists of a **central platform** (1) with a size large enough to cover the width of the **circulating** route. The **platform** is **carried** by a flanged beam (2)

with a gusset **plate** connected with an articulated jack (13) and **pivoted** at the other end to atransposed as a packed assembly and positioned on site and may be subsequently repacked by **carrying** out a reverse procedure. The roller assembly enables the **platform** elements to be **moved** easily into position one at a time. **Class Codes** International Patent Classification IPC Class Level Scope Position Status Version Date **A63G-0025/00... A63G-0025/00...** Original Publication Data by AuthorityArgentina**Publication No. ...Original Abstracts:**laying them in a horizontal series and **returning** the members to storage, is useful for example in the laying of a support for supporting **amusement vehicles**, for example in a **traveling fair** or circus. A vertically swinging assembly separates the members one by one from storage and swings them down to horizontal position and then pushes...

23/12,K/45 (Item 45 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

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0001790061

WPI Acc no: 1979-D3863B/197915

Acrobatic amusement device - has riding unit with three rotatable wheels which mate with track on inner circumference of stationary outer wheel

Patent Assignee: HYDE P R (HYDE-I)

Inventor: HYDE P R; LEWIS S J

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 4147343	A	19790403	US 1977772138	A	19770225	197915	B
			US 1978912249	A	19780602		
			US 1978912249	A	19780602		

Priority Applications (no., kind, date): US 1978912249 A 19780602

Alerting Abstract US A

The acrobatic **amusement** device comprises an **outer** wheel **affixed** to a **stationary platform**. The **outer** wheel has a track on its inner circumference and a **riding unit** is supported within the **outer** wheel for **movement** relative to this track. The **riding unit** comprises frame members having three **rotatable** wheels on it which mate with the **outer** wheel track at two places on one side of a dia. of the **outer** wheel and at one place on the other side of that dia. The **riding unit** can be given a **motion** relative to the track and rotary within the **outer** wheel about an axis coincident with the axis of that wheel to provide **amusement** and thrill for an occupant sitting upon the **riding unit**. A locking device may be provided to hold the **riding unit** in **fixed** relationship with respect to the **outer** wheel.

Title Terms /Index Terms/Additional Words: ACROBATIC; AMUSE; DEVICE; **RIDE**; **UNIT**; THREE; **ROTATING**; WHEEL; MATE; TRACK; INNER; CIRCUMFERENCE; **STATIONARY**; **OUTER**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A63B-0019/04	A	I		R	20060101

A63B-0019/00	C	I		R	20060101
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ECLA: A63B-019/04

ICO: K63B-208:12

US Classification, Current Main: 472-016000

US Classification, Issued: 47216

File Segment: EngPI; ;

DWPI Class: P36

...has riding unit with three rotatable wheels which mate with track on inner circumference of stationary outer wheel Alerting Abstract ...The acrobatic amusement device comprises an outer wheel affixed to a stationary platform. The outer wheel has a track on its inner circumference and a riding unit is supported within the outer wheel for movement relative to this track. The riding unit comprises frame members having three rotatable wheels on it which mate with the outer wheel track at two places on one side of a dia... ...The riding unit can be given a motion relative to the track and rotary within the outer wheel about an axis coincident with the axis of that wheel to provide amusement and thrill for an occupant sitting upon the riding unit. A locking device may be provided to hold the riding unit in fixed relationship with respect to the outer wheel. Class Codes International Patent Classification IPC Class Level Scope Position Status Version Date A63B-0019/04... A63B-0019/00... Original Publication Data by AuthorityArgentinaPublication No. Original Abstracts: An acrobatic amusement device comprising an outer wheel affixed to a stationary platform. The outer wheel has a track on its inner circumference and a riding unit is supported within the outer wheel for movement relative to this track. The riding unit comprises frame members having three rotatable wheels thereon which mate with the outer wheel track at two places on one side of a diameter of the outer wheel and at one place on the other side of that diameter. The riding unit can be given a motion relative to the track and rotary within the outer wheel about an axis coincident with the axis of that wheel to provide amusement and thrill for an occupant sitting upon the riding unit. A locking device may be provided to hold the riding unit in fixed relationship with respect to the outer wheel to allow the rider to mount and dismount from the riding unit, and a seat belt may be provided which must be fastened before the locking device will release.

23/5/46 (Item 1 from file: 347) [Links](#)

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07742351 **Image available**

TOY WITH ATTITUDE CONTROL MECHANISM

Pub. No.: 2003-236253 [JP 2003236253 A]

Published: August 26, 2003 (20030826)

Inventor: YAMAMOTO TOKUNORI

Applicant: SANOYAS HISHINO MEISHO CORP

Application No.: 2002-044479 [JP 200244479]

Filed: February 21, 2002 (20020221)

International Class: A63G-021/04

ABSTRACT

PROBLEM TO BE SOLVED: To provide a toy having an attitude control mechanism capable of applying a new **movement** to a **seat** of a **vehicle** to thereby fix the **seat** in a predetermined direction.

SOLUTION: The **vehicle** has a truck 3 running along a running path 21 and a controlled object 5 such as a **seat** connected to the truck 3, and it is provided with an **intermediate table** 6 between the truck 3 and the controlled object 5. The **vehicle** is provided with a **spin rotating** part E switched between the **rotating** state and the **fixed** state and capable of making one **revolution** or more, and a drift **rotating** part F always **rotatable** and capable of making below a **turn**, whereby the controlled object 5 can be caused to make a variable **turn** so as to give a new interest to a **passenger**. The **vehicle** is provided with an attitude **return** means G for **turning** the **intermediate table** 6 in a predetermined direction to the **vehicle**, whereby the attitude of the controlled object 5 can be controlled by a relatively simple method.

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NPL Database Search

Search Strategy

Set	Items	Description
S1	37374	S (MOTION OR FLIGHT? OR RIDE? ? OR FLYING OR AVIATION? OR SPACEFLIGHT? OR ZERO()GRAVITY? OR (G OR CENTRIPETAL? OR CENTRIFUGAL?)()FORCE? ? OR DISORIENT? OR DIS()ORIENT?) (3N) (SIMULATE? OR SIM OR SIMS OR REPLICAT? OR EMULAT?) OR (AMUSEMENT? OR ENTERTAINMENT? OR AMUSEMENTPARK? OR FUNFAIR? OR FAIR OR FAIRS OR DISNEYLAND? OR DISNEYWORLD? OR DISNEY() (LAND OR WORLD) OR SIX()FLAGS OR SIXFLAGS OR BUSCH()GARDENS OR (THEME OR HERSHEY)()PARK? ? OR CARNIVAL? OR CEDAR()POINT) (3N) (RIDE OR RIDES)
S2	18807	S HUB OR HUBS OR PLATFORM? OR ENTRYWAY? OR ENTRY? ? OR STATION? ? OR TOWER? ? OR DISC OR DISCS OR BASE? ? OR PLATE OR PLATES OR BASEPLATE? OR TABLE? OR STAGE? ?
S3	859	S (CENTER? OR CENTRAL? OR MIDDLE OR MID OR INTERMEDIATE?) (5N) S2
S4	300	S (STATIONARY? OR IMMOBIL? OR UNMOV??? OR NONMOV??? OR NONROTAT? OR UNROTAT? OR FIXED? OR (NON OR UN OR "NOT") (3W) (ROTAT? OR MOVE? ? OR MOVING OR MOVAB? OR MOVEAB? OR YIELD???) OR UNYIELD??? OR (STAY??? OR STAND???) (2W) STILL) (5N) S2
S5	7257	S RING OR RINGS OR PLATE? ? OR PLATFORM? OR STAGE? ? OR TABLE? ?
S6	261	S (OUTER OR OUTSIDE OR OUTERMOST? OR FURTHEST OR THIRD OR SECOND OR SURROUNDING) (5N) S5
S7	775	S (ROTAT? OR TURN??? OR TWIST??? OR SWIVEL? OR REVOLV??? OR REVOLUTION? ? OR PIVOT? OR TORQUE? OR RADIAT? OR CIRCULAT? OR SPIN OR SPINS OR SPUN OR SPINNING OR MOVE? ? OR MOVEAB? OR MOVING OR MOTION? ?) (5N) S5
S8	506	S (CONTINUOUS? OR CONTINUAL? OR (NON OR "NOT" OR UN) () (STOP OR STOPS OR STOPP???) OR CONSTANT? OR CONSISTENT? OR SUSTAIN?) (5N) (ROTAT? OR TURN??? OR TWIST??? OR SWIVEL? OR REVOLV??? OR REVOLUTION? ? OR PIVOT? OR TORQUE? OR RADIAT? OR CIRCULAT? OR SPIN OR SPINS OR SPUN OR SPINNING OR MOVE? ? OR MOVEAB? OR MOVING OR MOTION? ?)
S9	2040	S (PASSENGER? OR RIDER? OR RIDE OR RIDES OR RIDING OR TRAVEL? OR ASTRONAUT? OR COSMONAUT? OR SPACEM?N OR SPACE() (MAN OR MEN)) (5N) (UNIT OR UNITS OR CAR OR CARS OR VEHICLE? ? OR VEHICULAR? OR POD OR PODS OR CART OR CARTS OR ORB OR ORBS OR SPHERE? ? OR SEAT? ? OR SEATING OR BENCH??)
S10	28	S S3:S4 AND S6:S7 AND S8:S9
S11	26	RD (unique items)
S12	18	S S1 (2S) S3:S4 (2S) S6:S7
S13	18	S S12 NOT S10
S14	13	RD (unique items)
S15	94	S S1 AND S3:S4 AND S6:S7
S16	7	S S15/2005:2006
S17	8	S S15/2007:2009
S18	47	S S15 NOT (S10 OR S13 OR S16:S17)
S19	39	RD (unique items)

[File 8] **Ei Compendex (R)** 1884-2008/Jul W2

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[File 80] **TGG Aerospace/Def. Mkts (R)** 1982-2008/Jul 17
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[File 624] **McGraw-Hill Publications** 1985-2008/Jul 25
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[File 15] **ABI/Inform(R)** 1971-2008/Jul 25
(c) 2008 ProQuest Info&Learning. All rights reserved.
[File 635] **Business Dateline(R)** 1985-2008/Jul 26
(c) 2008 ProQuest Info&Learning. All rights reserved.
[File 636] **Gale Group Newsletter DB(TM)** 1987-2008/Jul 18
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Search Results

11/3,K/5 (Item 4 from file: 148) Links
Gale Group Trade & Industry DB
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12642957 **Supplier Number:** 65652617 (USE FORMAT 7 OR 9 FOR FULL TEXT)
EASING THE STRAIN. (theme park ride engineering technology at Universal Studios theme park)

Hartung, Glen
Mechanical Engineering-CIME , 122 , 9 , 90
Sept , 2000
ISSN: 0025-6501
Language: English
Record Type: Fulltext
Word Count: 1963 **Line Count:** 00161

...several thousand **riders** a day. And it's a safe bet that none of them is aware of the **engineering** technology beneath their feet.

Each **ride vehicle** consists of an open **passenger** cabin mounted on a translating **motion base**. Achieving the desired **ride** performance from the **motion base** meant minimizing the cabin weight. This led Universal to select **carbon-fiber** composite technology for one of the most critical structural components of the **vehicle** assembly, the cabin floor.

A **ride**'s safety is paramount, and that is ensured by built-in durability. In the case of the cabin floors, reliability is especially critical as composites...

...loath to disappoint vacationing customers and their kids by not having the **ride** functioning when the park is open.

Universal points out that the entire **ride** system, including every **vehicle**, is thoroughly inspected nightly. In addition, routine maintenance and rebuilds are scheduled at preset intervals for each **vehicle**. An unexpected maintenance task, such as replacing...

...Universal called in GLENCO **Engineering** Inc., to perform finite element modeling and analysis in order to evaluate the primary structural components of the Spider-**Man ride vehicle** cabin.

GLENCO specializes in structural analysis and strain gauge testing for the theme park industry by using methods that were developed for **aerospace engineering**. The...

...the peak strains were higher than the values determined in the hand calculations and associated strain gauge testing. The cabin floor is attached to the **motion base** through a steel **ring** embedded within the composite layup, at about the **center** of the floor. FEA found that the peak strains in the composite did not occur adjacent...composite skin around the steel **ring**, at locations not instrumented in the initial prototype testing. Testing was performed with the prototype cabin mounted on a **stationary** test stand type of **motion base**. This device **simulated** the accelerations expected during **ride** operation.

The dynamic strain measurements confirmed that the model correctly predicted both location and orientation of the...

...weight was critical in cabin design.

These analytical predictions were also confirmed with more strain gauge testing. This **second** set of tests used a complete **ride vehicle**, including the redesigned composite floor, operating on the actual **ride** track.

The finite element analysis of the Spider-**Man** cabin structure significantly improved the design...

11/3,K/9 (Item 8 from file: 148) Links

Gale Group Trade & Industry DB

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07317059 **Supplier Number:** 15406313 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Variable delay lines offer continuously variable range selection for radar target simulators.

Anderson, Chris S.; Zari, Michael C.

Microwave Journal , v37 , n4 , p246(4)
 April , 1994
 ISSN: 0192-6225
Language: ENGLISH
Record Type: FULLTEXT
Word Count: 1970 **Line Count:** 00165

...for range **simulators** have been limited to **fixed** delays or **discrete** delay selection through the use of tapped delay lines. A new technique for realizing **continuous** range-**motion** is currently available for radar target **simulators** and other applications.

This paper describes a radar target **simulator** that utilizes **continuously** variable delay line (CVDL) technology.(1)(2) The availability of this technology allows the radar tester to **simulate continuous** target **motion** and to perform complex target **maneuvering**. Other advantages of this technology include low cost (relative to digital radio frequency memory (DRFM)) devices and low spurious...

...efficiency. However, internal amplification can be used to minimize insertion loss while maintaining range performance in excess of 45 dB.

TABLE 1 SPECIFICATIONS FOR CVDL BASED RADAR TARGET SIMULATOR

Center Frequency(1) (MHz)	30 to 18,000
Bandwidth (MHz)	10 to 80
Delay	
[T.sub.3][O.sub.2] ([micro]s)	> 50 (max) 0.4...

...delay value is desired, a **command** is sent to the stepper motor. This **command** repositions the **stage** corresponding to the desired delay. To affect target **motion**, the translation **stage** position is controlled, as a function of time, enabling both **constant** velocity and accelerating/decelerating targets to be tested.

CVDL-Based Radar Target Simulators

Incorporation...target **simulators** offer new opportunities that have never been available to test and characterize radars and other RF equipment. The availability of this technology offers **continuous** target **motion**, complex target **maneuvering**, low spur levels and low cost. Using AO techniques, CVDL **based simulators** with bandwidths up to 80 MHz are available at user...

11/3,K/24 (Item 7 from file: 15) [Links](#)

ABI/Inform(R)

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01560407 02-11396

The fantastical meets the practical

Valenti, Michael

Mechanical Engineering v119n12 pp: 66-71

Dec 1997

ISSN: 0025-6501 **Journal Code:** MEG

Word Count: 3437

Text:

...Ride and Show Bot.

Small Parts Inc. in Miami Lake, Fla., a subsidiary of FIRST, provided the drive motors and chains needed for the drive **unit**. **Ride** and Show engineers used AutoCAD software from Autodesk Inc. in San Rafael, Calif, to lay out various drive scenarios, and decided that reduction sprockets were...French, German, and Spanish.

The biggest challenge Petrino faced in such projects was equipping the **Carousel** of Progress in the Magic Kingdom. **Seated** guests are **rotated** around six **fixed stages**, halting in **turn** to view each show individually. "A problem that arose was keeping the infrared signal from one **stage** overlapping into another. We solved this by **careful**...

14/7/5 (Item 1 from file: 23) [Links](#)

CSA Technology Research Database

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0009004207 IP Accession No: 200804-71-424740; 200804-61-452118;

2008409163; A08-99-438937

Vibratory simulator motion system

Myles, Walter Edward; Sansonetti, James Anthony

, USA

Publisher Url: [http://patft.uspto.gov/netacgi/nph-](http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=39 84924.PN.&OS=pn/3984924& RS=PN/3984924)

[Parser?Sect1=PTO2&Sect2=HITOFF&u=/netaht ml/PTO/search-](http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=39 84924.PN.&OS=pn/3984924& RS=PN/3984924)

[adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=39 84924.PN.&OS=pn/3984924& RS=PN/3984924](http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=39 84924.PN.&OS=pn/3984924& RS=PN/3984924)

Document Type: Patent

Record Type: Abstract

Language: English

File Segment: Metadex; Mechanical & Transportation Engineering Abstracts;

ANTE: Abstracts in New Technologies and Engineering; Aerospace & High

Technology

Abstract:

This invention is a **motion** system for use with **simulators**, primarily **vehicle simulators**, which provides random oscillatory **motion** to **simulate** the vibration encountered on such **vehicles** as trains, subway systems, trolley cars, etc. The **motion** system comprises a **fixed base** and a movable **platform** supported on that **base** at three primary points. Two points laterally **spaced** from each other support the **motion platform** on **springs** and a **third** support at the other end of the **platform** comprises a single ball support. **Intermediate** the pair of **spring** supports and the single ball support is a **motion** producing member such as a hydraulic cylinder.

19/3,K/31 (Item 1 from file: 15) [Links](#)

ABI/Inform(R)

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02566597 268030251

Design of a 3-degrees of freedom platform for the stereolithography apparatus

Holzer, Florian; Fadel, Georges

Rapid Prototyping Journal v8n2 pp: 100-115

2002

ISSN: 1355-2546 **Journal Code:** RPPT

Word Count: 6364

Abstract:

...the final design described. The impetus for the research is the need to reduce layering errors in layer-based machines. The final solution allows the **platform** to **rotate** along two axes and be elevated along the Z-axis with minimal disruption to the present set-up.

Text:

...the final design described. The impetus for the research is the need to reduce layering errors in layer-based machines. The final solution allows the **platform** to **rotate** along two axes and be elevated along the Z-axis with minimal disruption to the present set-up.

Electronic access

The current issue and full...

...layer is completed, the **platform** holding the object is lowered (this is not the case in the newer machines with the Zephyr coating system). The **platform motion** is directed by the control computer and is driven by a precision stepper motor. Liquid resin now flows over the recently polymerized layer. The **platform...**of time and money (Pahl and Beitz, 1999).

3.2 Functional design for the modified SIA 1

The major task of the project is to **move** the **table** or the RP-model relatively to the laserbeam, so that the beam can always be orthogonal or parallel to the area being built, to obtain...

...For every sub-function, **many** solutions have to be generated. The section below lists possible solutions considered.

4.1 **Motion** around or along the axes

* **Motion** of the **table**

* **Motion** of the laser beam

* **Motion** of the **table** and of the laser beam

Multiple figures were generated to describe and understand the various options. A subset of these figures is shown in Figure...
...**motion**, propulsion is also needed. Again, different solutions can be generated:

* Electrical stepper motor

* Hydraulic propulsion.

* Pneumatic propulsion

* Electromagnetic field

4.3 Transmission of the **motion**

The **motion** of the **table** typically takes place in the vat with ...these can be combined to obtain an overall solution. However a closer look at some cases can make the solution finding easier.

4.5.1 **Motion** of the **table**

Figure 3

First the **table rotation** is considered. This can happen in different ways: The **table** can be placed in a frame, or held by a hand or supported at the...
...the same way.

Solution #1. Here the idea of the U-frame that is connected with the rack by a bolt and in which the **table** can **rotate** is used. To propel the X-axis, a stepper motor is situated on the top of the rack and the rotary **motion** is transmitted to...

...the axes. From there the **motion** has to be transferred to the axis. The direct way cannot be used because it would conflict with the **turning table** or the laser beam. Thus, the solution has to go over the corner of the frame. Therefore one possibility is to use wire ropes that...

...and a gear, it is even better to use a rack and a pinion (Figure 7).

Solution #5. The next possibility is to surround the **table** with two frames and **rotate** it in them around the axes. The **outer** frame is connected to the rack. In this case, it makes no sense to put one of the motors on the frame, because there is not enough **space** and possible collisions could result (Figure 8).

4.6.2 **Table fixed** at the hand of a robot

This group contains 3 solutions where the **motion** is realized by a "hand of a robot":

Solution #6. The...

...Z-axis and also the rack. The hand is **fixed** at the rack and connected with the **table**. So the X-axis is in the **middle** of the **table** and the Y-axis is next to it. First the **rotation** around the Y-axis takes place. Then the whole **platform** with the Y-propulsion **turns** around the X-axis (Figure 9).

Solution #7. Another possibility is to place the drive under the **table** in its **middle**. So the X- and the Y-axes also go through the **middle**. In this case, the **platform** first **rotates** around the X- or the Y-axis, then, the **platform** and the propulsion **turn** around the Z-axis. The hand of the robot is placed on a hydraulic cylinder, which is **fixed** on the bottom of the vat (Figure the **platform** at three points

Now the solutions where the **table** is **moved** via three corners or points come up.

Solution #9. First a rotary **motion** is generated with a stepper motor that

propels a screw. On the screw is a nut that converts the **rotation** into a translation and which is connected to the **platform**. Because the **table rotates** but the nuts can **move** only along the z-axis, the **platform** and the nuts have to be linked by ball joints. As the horizontal distance of the screws stays...

...The vertical hydraulic cylinder is even worse, because it would take more than half of the size of the vat. Furthermore, the size of the **table** is restricted, because the **table rotates** around the Z-axis. So the biggest diagonal of the **table** has to be smaller, otherwise it would collide with the vat, when it **turns** around. This means that the **table** cannot be bigger than 17.8 cm X 17.8 cm. The next point is that solution #6, where the hand is on the side...

...be an easy design and construction and no hinges are necessary because the ropes are flexible. Unfortunately the whole system will be **unstable** and the **motion** of the **table** will not be precise.

Solutions #14 and #15, where the mirror of the laser **moves**, are the last solutions that are rejected at this time...evaluation criteria are relevant for the evaluation:

(1) Function

- * Sufficient **motion**: even if the desired angle of 45 deg cannot be reached, the bigger the **rotation** of the **table**, the better. The whole system should not clamp.

- * Reasonable use of **space**: as the **space** in the vat and in the chamber is restricted, it...

...the direct distance from the motor to the **table** or the frame to enable the **rotation**, they require around 4 in of **space** under the **platform** if a **rotational** angle of 45 degree is to be reached.

Variant #4 does not have this problem, because the screws or the racks are **fixed** directly at the **platform**. Instead they demand the **space** above the rack and there is enough available. But both solutions have the problem that the motors have to **rotate**...where the screws or the rack are above the **platform**.

A combination of these solutions is also possible. A system where the screw is directly **fixed** at the **platform** (like in #4) and where the screw is also directly connected with the stepper motor (like in #3), so that no gears or pinions are...

...rigid bodies and constraints (e.g., motors, **springs** and joints) have to be defined, then Working Models 3D's **simulation** engine puts the model in **motion**.

6.1.1 Simulate a motion

During the project, Working Model 3D was used to check if solutions fulfill the required **motions** and if there are any collisions. In some cases...

...to enable the **rotations** and avoid clamping should be tested.

The bar is **fixed** on the rack and one cylinder connects the bar with the **table** (**rotation** around the Y-axis), the other one connects

the rack with the frame (**rotation** around the X-axis). Figure 19 shows the main front end of Working Model 3D. Figures 20-25 show different snapshots of the **motion** of the **platform**.

The following screenshots give an idea of how the **motion** of the **table** is realized.

6.2 Stepper motors

To realize the small steps of 0.00254 cm to 0.0254 cm it is absolutely necessary to use...

19/3,K/36 (Item 1 from file: 635) Links
 Business Dateline(R)
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 0379243 93-30190
Moog making flight simulators as amusements

Robinson, David
 Buffalo News (Buffalo , NY , US) s BUS p --
Publication Date: 930307
Word Count: 568
Dateline: Buffalo, NY, US

Text:

...helped send the Voyager **space** probes to Jupiter.

Now, with defense cutbacks cutting into its core military business, the East Aurora aerospace firm is making **moving entertainment platforms** where people can experience the sights, sounds--and **motion** ---that might be involved in a rocket trip to Jupiter.

While people sit in a cabin attached to the **platform** watching a high-quality movie, the **platform moves** up, down, backward, forward and tilts in tandem with the scenes depicted in the screen.

With a capability to **move** the cabin up to two feet per **second**, the **platform** can **simulate** the **motion** involved **flying** a jet fighter, **riding** a roller coaster or taking a run in a toboggan, said James C. Stegner, Moog's director of technology development. Moog...

...minute to make, although some companies will license the use of an existing film for far less, he said.

So far, Moog has sold three **platforms**--one to the Huntsville **center** and two that will be used in the Canadian pavilion at the 1993 World's **Fair** in Taejon, Korea. Stegner said the company hopes to...

?